USER MANUAL

WEB DOCUMENTS INFORMATION MANAGEMENT SYSTEM
(WEB-DIMS Version 2.0)

Knowledge Information Management (KIM) Unit, FAO Regional Office for the Near East and North Africa
Food and Agriculture Organization of the United Nations
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(1) Getting Started with Web-DIMS . . .

Web Document Information Management System (Web-*DIMS*) is a web based fully multilingual (Arabic/ English/ French/ other languages) documents repository system at institutional level for capturing and disseminating information on technical reports, publications and documents produced by the entire institution. WEB-DIMS system provides a front-end for browsing and searching and a backend for storing and update publications' data.

WEB-DIMS is a fully dynamic web-based application developed using an advanced open source software technology (MySQL open source software, Agricultural metadata element set, AGRIS Application Profile, AGROVOC Arabic/English, xml metadata, AGRIS AP) for facilitating Interoperability and promoting coherence in knowledge management and information exchange among NARS and for increasing the visibility and diffusion of the institutionally produced publications at national level.

WEB-DIMS is an institutional document repository that contains all the information about publications and keeps track of publications authored by the researchers and experts. Each publication has specific data such as abstract, authors, keywords and fulltext, if available.

The front-end provides the information retrieval and browsing functionalities. The front-end is completely built on XML and an open source Lucene Index server as search engine. The backend component is using an open source MySQL database engine to allow for large concurrent users to enter their data without single problem to be observed.

User can access ***WEB-DIMS*** backend only by his/her account (user name and password). The backend has security and user management levels that control data management functionalities that include accessing and manipulation of the data. The workflow is built on two levels: the data entry level and publisher level.

(2) Front-end Components

2.1 Searching Web-DIMS

There are two primary methods for searching within ***WEB-DIMS*** collection:

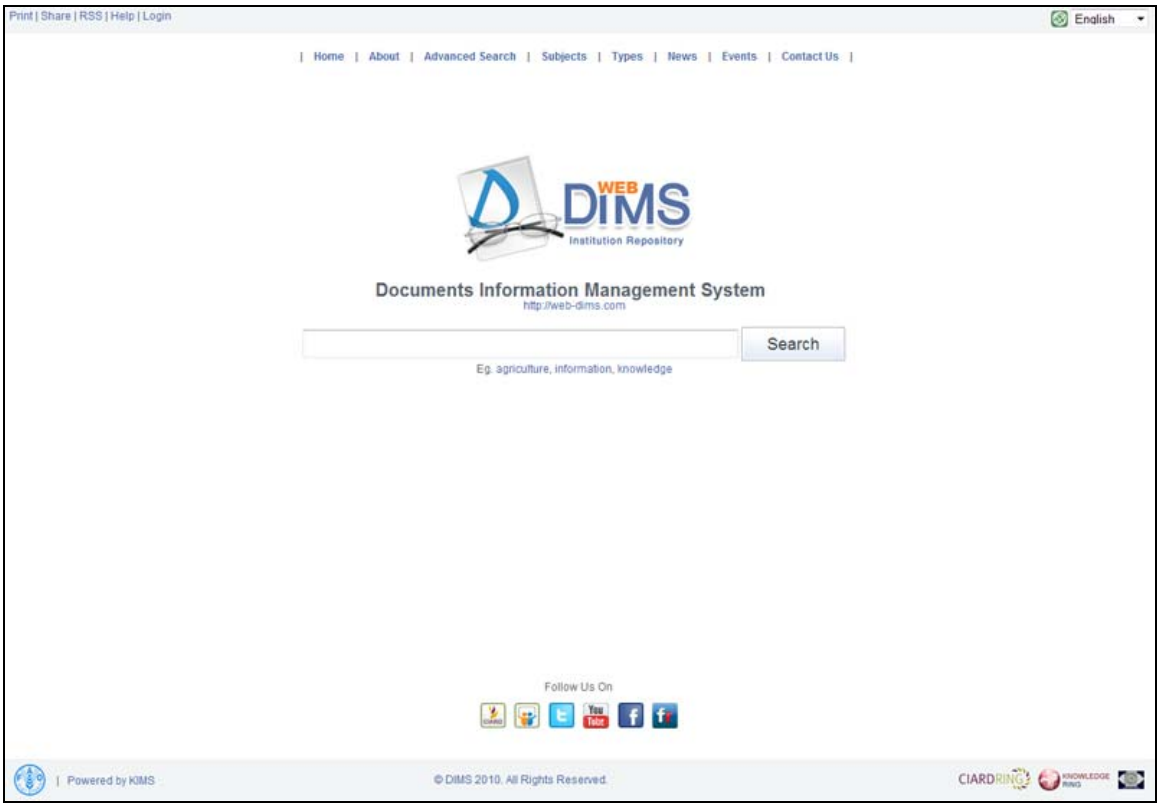
- **Simple Search:** A most basic and quick search type. Use it when you only need to find a single word or phrase (of the most-frequently searched fields).
- **Advanced Search:** A structured search form that guides composition of more complex searches using Boolean operators.

Simple Search

To perform a simple search of the ***WEB-DIMS*** Collection;

1. Open WEB-DIMS home page, by opening the browser and write "http://web-dims.com/" in Address bar.
2. DIMS Home page will be displayed, with a simple search capability.
3. In the search box enter your search term(s) or phrase, then click on search Button
4. *All documents that contain that keyword will be displayed*

*Example***:**


Print | Share | RSS | Help | Login
English
Home | About | Advanced Search | Subjects | Types | News | Events | Contact Us
WEB DIMS
Institution Repository
Documents Information Management System
http://web-dims.com
Search
Eg. agriculture, information, knowledge
Follow Us On
Powered by KIMS
© DIMS 2010. All Rights Reserved.
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Advanced Search

You can use the Advanced Search form to build more targeted searches by specifying multiple criteria. The basic format for constructing an advanced search is:

1. Select one or more fields from list and enter search term(s) in the text box.
2. Use the Boolean operator by select And/Or from the dropdown to combine tow or more fields searching. While The "And" limits the search to a set of results that must contain both criteria together (narrows the search), "Or" selection will result in another set that contains any of the searched keywords (broadens the search).

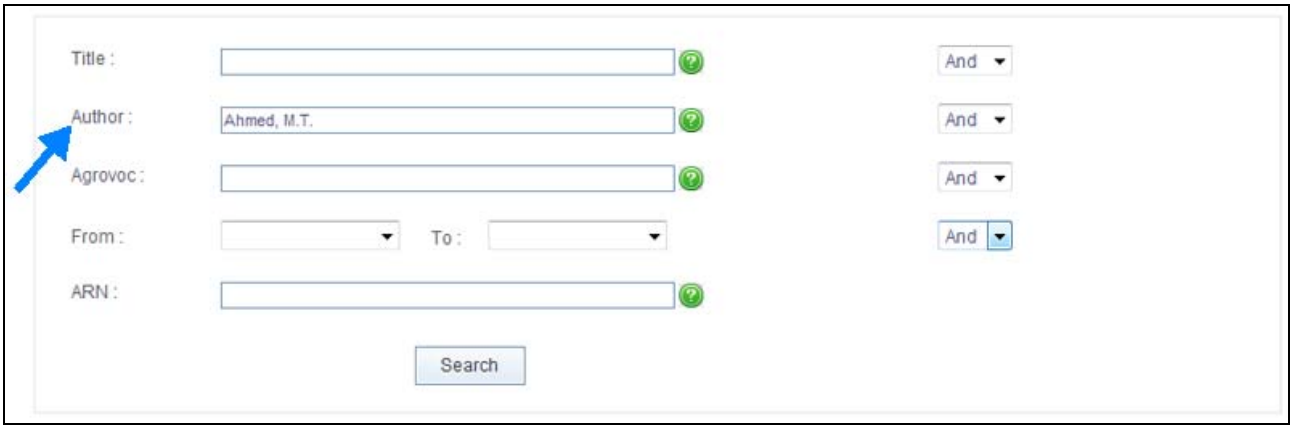
You may search the Collection from one or more of the following searched fields:

- Title: The name assigned by the author to the document.
- Author: Author, compiler, and editor names appear in the Author field.
- AGROVOC: Standardized terms from the structured and controlled vocabulary Thesaurus designed to cover the terminology of all subject fields in agriculture, forestry, fisheries, food and related domains
- Type: Select one or more publication types from the list, instead of the default *Any Publication Type* that includes all types in your results.
- Subject: Can be a word or phrase
- Year: Select a single year or range of years from the drop-down lists
- ARN: A unique accession number assigned to each record in the database. These are also known as AGRIS Resource Number (ARN).

Example:

Search using one criterion:

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Click on "Advanced Search" link
3. In the title box type a keyword, example: "Bio", then press search button.
4. The search result page will display all the publications results that contain the stated keyword within title



Note: To search using one criterion only: Author, ARN, Agrovoc or year, repeat the above steps and fill the corresponding search box each time (i.e. searching for author name "Ahmed"), as shown in figure

Search using multiple criteria:

You can use "AND" and "OR" (also known as Boolean operators) to combine search terms in ways that broaden or narrow a search.

"AND" operator

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Click on "Advanced Search" link
3. In the title box type a keyword, example: "Bio"
4. Select "And" from list box
5. In "Author" box type a keyword, example: "Hassanein"
6. Press search button
7. The search result page will display any publication or document contains both stated title and author.

"OR" operator

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Click on "Advanced Search" link
3. In the title box type a keyword, example: "Bio"
4. Select "Or" from list box
5. In "Author" box type a keyword, example: "Hassanein"
6. Press search button
7. The search result page will display any publication or document contains any of stated title or author.

2.2 Auto complete

Auto-complete is a feature provided by the system to enable users quickly finding and selecting some value, leveraging searching and filtering. This feature speeds up human-computer interactions.

The auto-complete plug-in starts searching for matching entries and displays a list of suggestions based on a partial input to choose from. By entering more characters, the user can filter down the list to better matches.

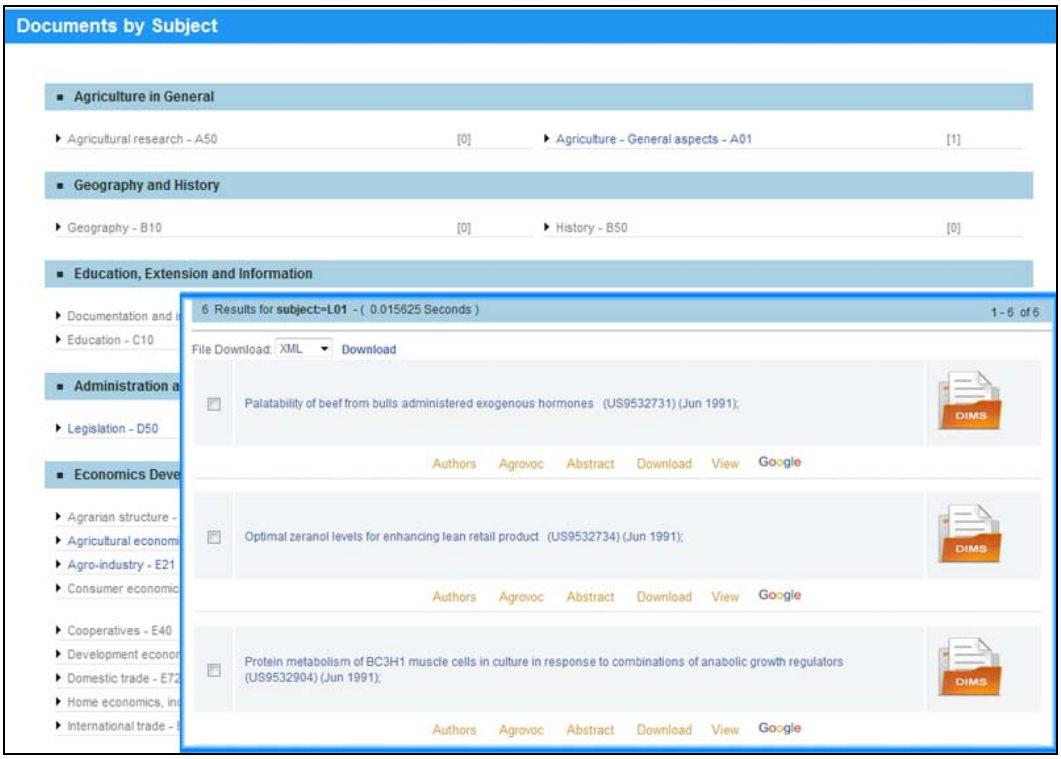
For example, if the user typed “agr” in the text field, the auto-complete plug-in will start searching the available data that contains the characters “agr” and display a list of available words matching like “agriculture” or “agricultural”.

2.3 Browsing

The browsing capability can be considered an extension of the search capability that empowers the ***WEB-DIMS*** site. The front-end allows the end user to browse existing publications/documents either by subject or type.

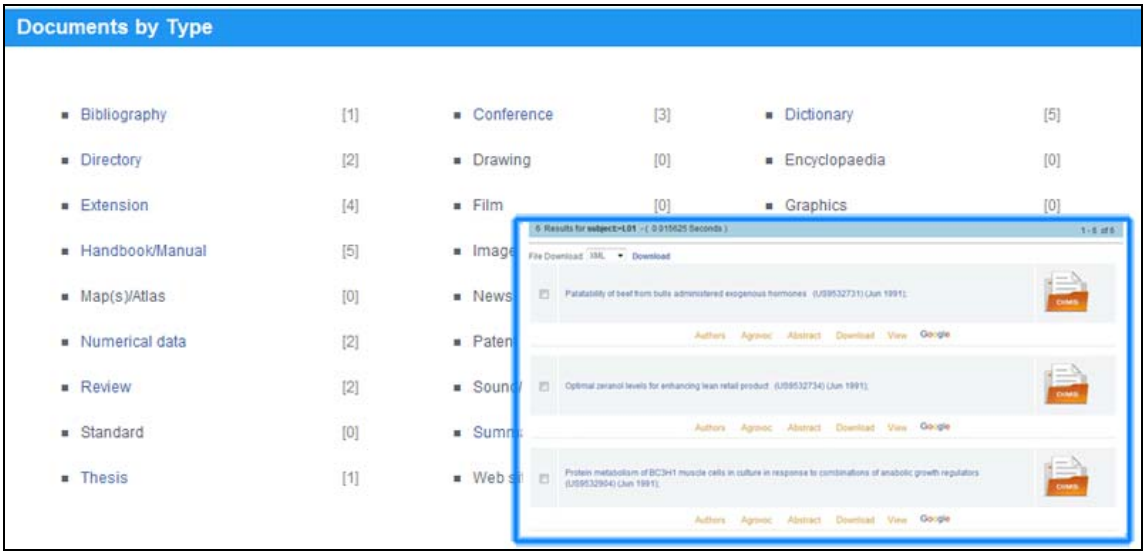
"Subject" Browsing

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. From upper menu bar select "Subjects"
3. An alphabetical listing of publications' Subjects will be displayed (i.e.: Education (C10), Extension (C20), etc.)
4. Click any subject, example: Pets & Animals (L72); and all Publications under that subject will be displayed in a new browser window.


Documents by Subject
Agriculture in General
Agricultural research - A50 [0]
Agriculture - General aspects - A01 [1]
Geography and History
Geography - B10 [0]
History - B50 [0]
Education, Extension and Information
Education - C10
Legislation - D50
6 Results for subject:=L01 - (0.015625 Seconds) 1 - 6 of 6
File Download: XML Download
Palatability of beef from bulls administered exogenous hormones (US9532731) (Jun 1991);
Optimal zeranol levels for enhancing lean retail product (US9532734) (Jun 1991);
Protein metabolism of BC3H1 muscle cells in culture in response to combinations of anabolic growth regulators (US9532904) (Jun 1991);
Authors Agrovoc Abstract Download View Google
DIMS

"Type" Browsing

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. From upper menu bar select "Types"
3. An alphabetical listing of publications' types will be displayed (i.e.: Bibliography (Z), Conference (K), Thesis (U), etc.)
4. Click any type, for example "Bibliography (Z)"; and all publications under that type will be displayed in a new browser window.



2.4 Results and Knowledge Display and Sharing

Once you have performed a search on WEB-DIMS you will be presented with a page, or several pages, of results. The search results page includes not only the outcome of your search, but also displays search-related information and options which are:

- The number of results found
- Number of results per page
- XML download

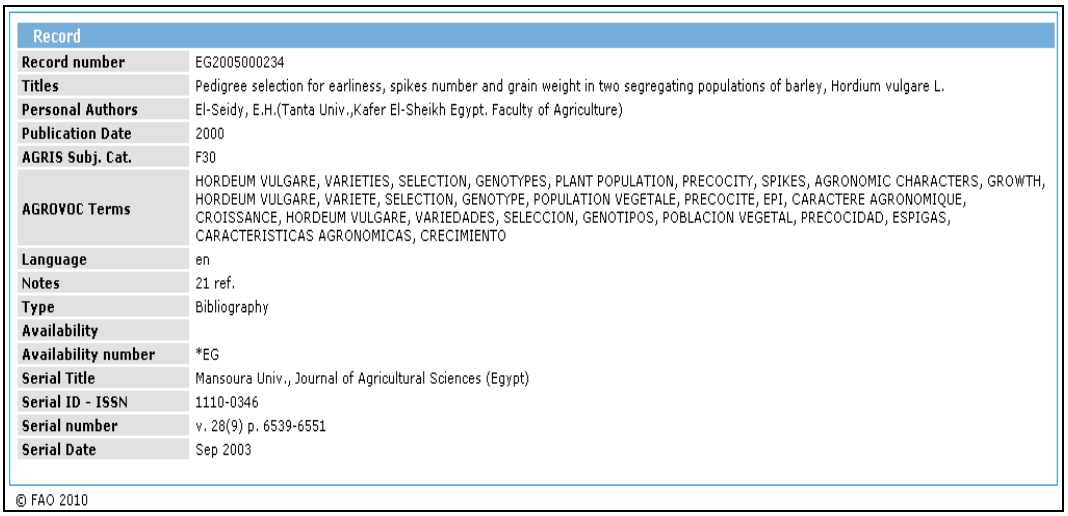
Search Results

The search results page lists all the publications found under the stated search criteria:

- Search box is shown displaying the search criterion
- Set of results displayed per page at the upper-right corner of the page.
- Total number of results found and search response time are displayed at upper-right corner of the page.
- Results pages with which user can browse through by clicking page number.
- XML download link to allow publication information xml files download.

6 Results for subject:=L01 - (0.015625 Seconds)
1 - 6 of 6
File Download XML Download
Palatability of beef from bulls administered exogenous hormones (US9532731) (Jun 1991);
DIMS
Authors Agrovoc Abstract Download View Google
Optimal zeranol levels for enhancing lean retail product (US9532734) (Jun 1991);
DIMS
Authors Agrovoc Abstract Download View Google
Protein metabolism of BC3H1 muscle cells in culture in response to combinations of anabolic growth regulators (US9532904) (Jun 1991);
DIMS
Authors Agrovoc Abstract Download View Google

Clicking a publication title will show full record with field names in new browser page; as in the following figure:



Record	
Record number	EG2005000234
Titles	Pedigree selection for earliness, spikes number and grain weight in two segregating populations of barley, Hordium vulgare L.
Personal Authors	El-Seidy, E.H.(Tanta Univ.,Kafer El-Sheikh Egypt. Faculty of Agriculture)
Publication Date	2000
AGRIS Subj. Cat.	F30
AGROVOC Terms	HORDEUM VULGARE, VARIETIES, SELECTION, GENOTYPES, PLANT POPULATION, PRECOCITY, SPIKES, AGRONOMIC CHARACTERS, GROWTH, HORDEUM VULGARE, VARIETE, SELECTION, GENOTYPE, POPULATION VEGETALE, PRECOCITE, EPI, CARACTERE AGRONOMIQUE, CROISSANCE, HORDEUM VULGARE, VARIEDADES, SELECCION, GENOTIPOS, POBLACION VEGETAL, PRECOCIDAD, ESPIGAS, CARACTERISTICAS AGRONOMICAS, CRECIMIENTO
Language	en
Notes	21 ref.
Type	Bibliography
Availability	
Availability number	*EG
Serial Title	Mansoura Univ., Journal of Agricultural Sciences (Egypt)
Serial ID - ISSN	1110-0346
Serial number	v. 28(9) p. 6539-6551
Serial Date	Sep 2003

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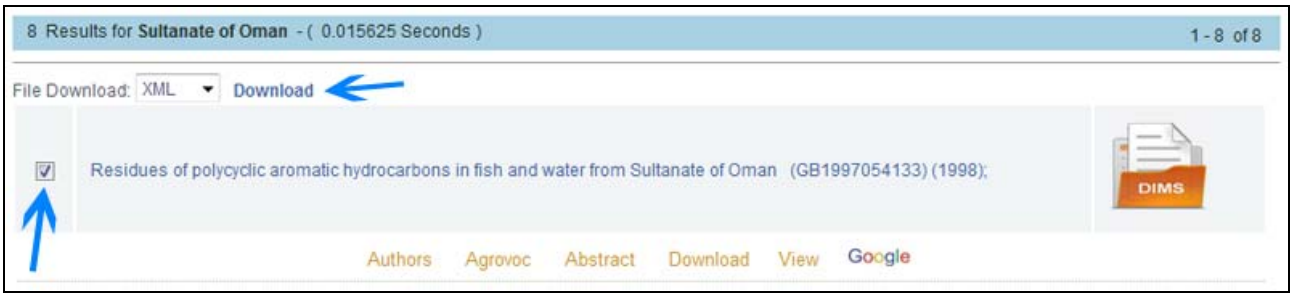
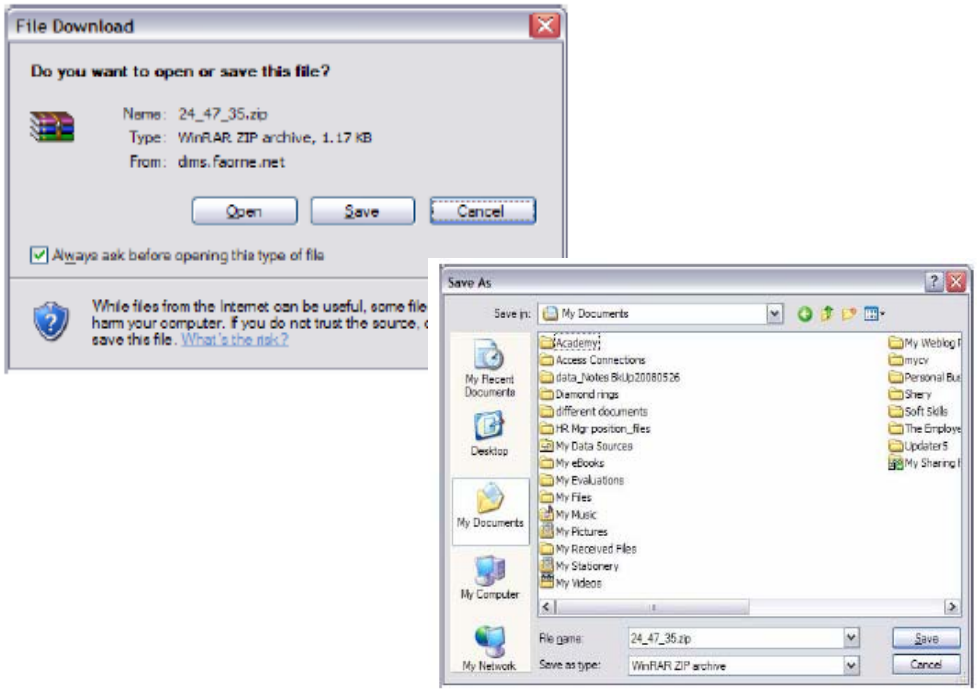
Note: Some fields in a record may not contain information. This is not an error. When data exists it will be displayed for the record.

XML files Downloading

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Perform a search criterion or browse the publications by type or subject, as explained above.
3- Select one or more of the listed publication by clicking on the left check-box.
4- Click XML download link, located at the top of the search results page.



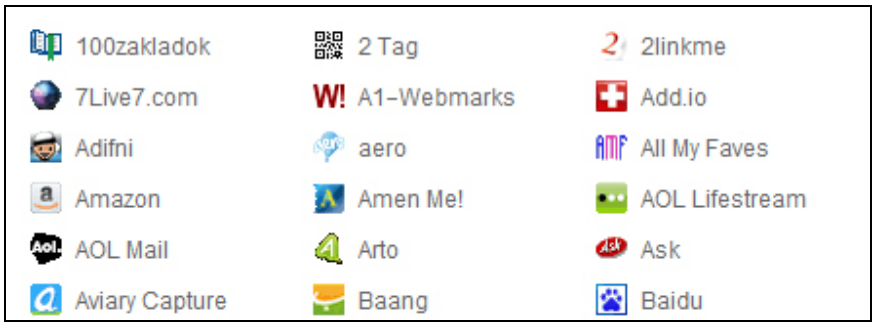
5- Press "Save" button in the "File Download" dialogue box.
6- The "Save As" dialogue opens. Select a location on your computer to save the zipped file.



7- Unzip the file to extract XML files that contain information of the selected publications on target location.

Sharing

WEB-DIMS site supplies its users with a supplementary bookmarking and sharing capability that allows the user to share the WEB-DIMS pages with friends or to add them to own computer favorites. This option makes use of the "Addthis.com" service. The option is available on all WEB-DIMS pages , on the upper-right corner icon.



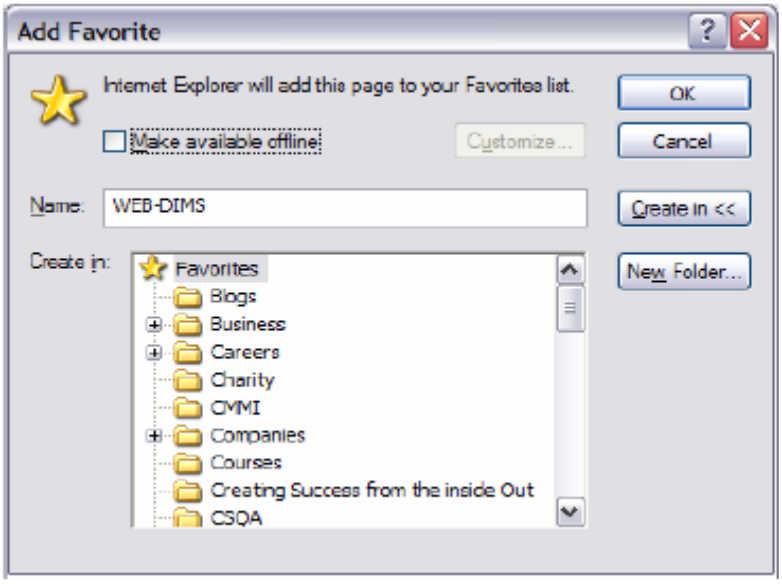
The Share option allows the user to share links through the following service:

- Email
- Favorites
- My Spaces
- Face book
- Del.icio.us
- Digg
- Live

- Yahoo My web
- More (this allows more options through Addthis.com)

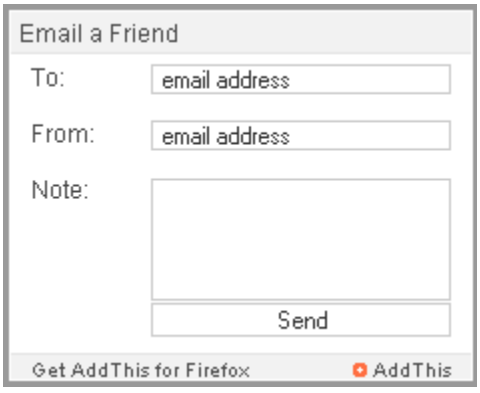
Adding webpage to favorites

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Press "Share" icon on the Upper-right corner (Share), a pop-up window opens with all the "Bookmark & Share" options.
3. Click on "Favorites" to open "Add to Favorites" dialog
4. Select a location in favorites then press Ok



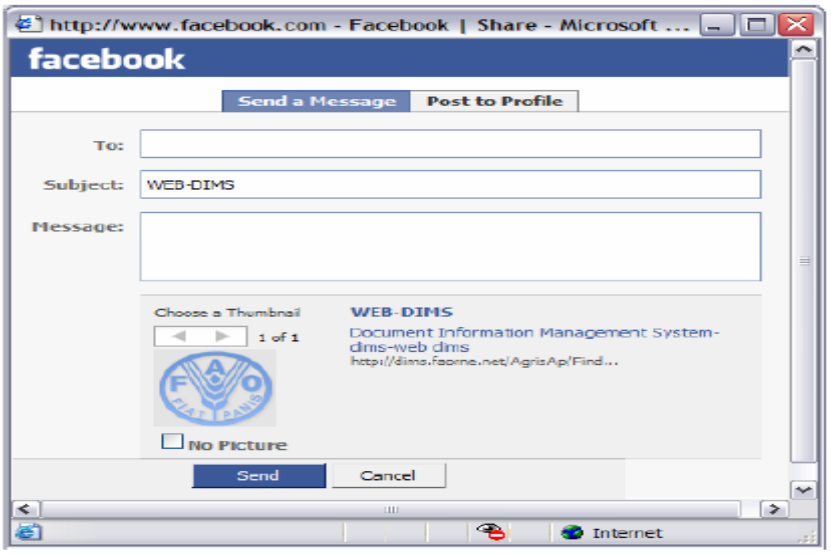
Sharing webpage by mail

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Press "Share" icon on the Upper-right corner (Share), a pop-up window opens with all the "Bookmark & Share" options.
3. Click on "Email" to open "Email a Friend" dialog
4. Type the recipient email Address in "To", yours in "From" and your message; then press "Send".
5. The recipient will receive email message with the page URL in its content.



Sharing webpage via Facebook

1. Open WEB-DIMS home page, by opening the browser and type "http://web-dims.com/" in Address bar.
2. Press "Share" icon on the Upper-right corner (Share), a pop-up window opens with all the "Bookmark & Share" options.
3. Press "Facebook" to log-in to facebook using the user's own credentials.
4. Facebook account opens allowing user to send message to any of his contacts or post to his own profile the URL s/he wants to share.



(3) Back-End Components

3.1 Users and Groups

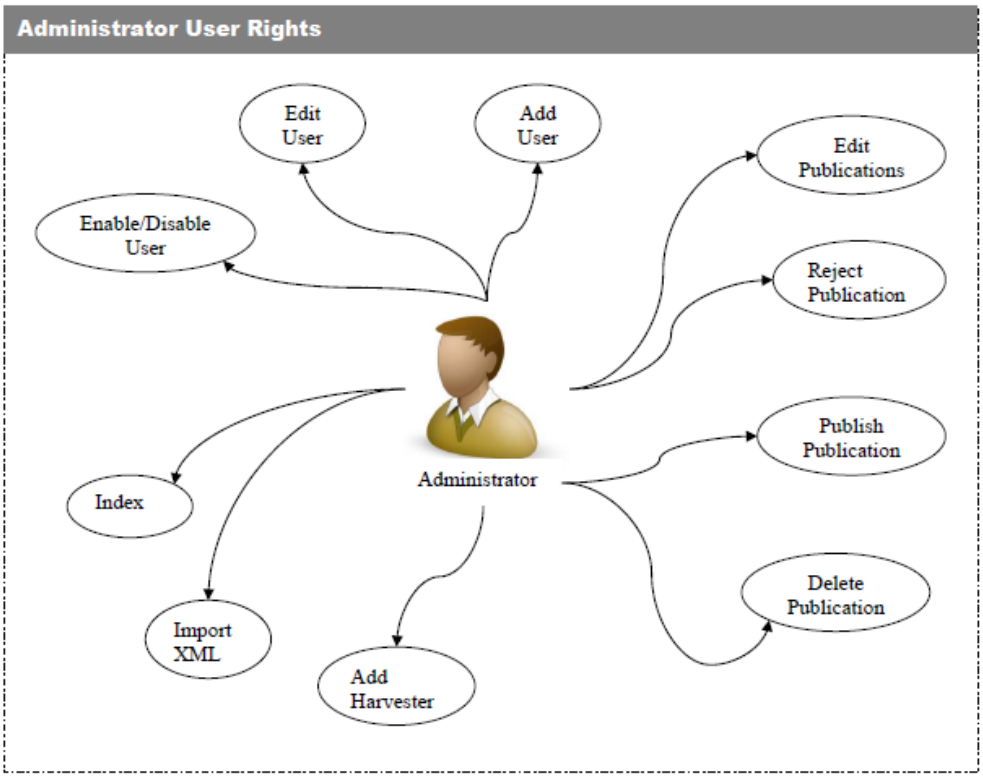
Users require accounts to be able to log in and submit or edit items. Some users have additional rights that let them administrate the software. These concepts are explained in this module. Users are explained more in-depth in the module 'User Management'.

User types and access rights

The System has several types of users; each user type has its own access rights and responsibilities. These user types are "**Institute Administrator**", and "**Data Entry**".

1. Institute Administrator

The institute Administrator has a full capability of creating as many Data entry users as required. He can also enable or disable any data entry user account. As well as, review and manipulate any of publications that have been sent to him by the data entry staff.

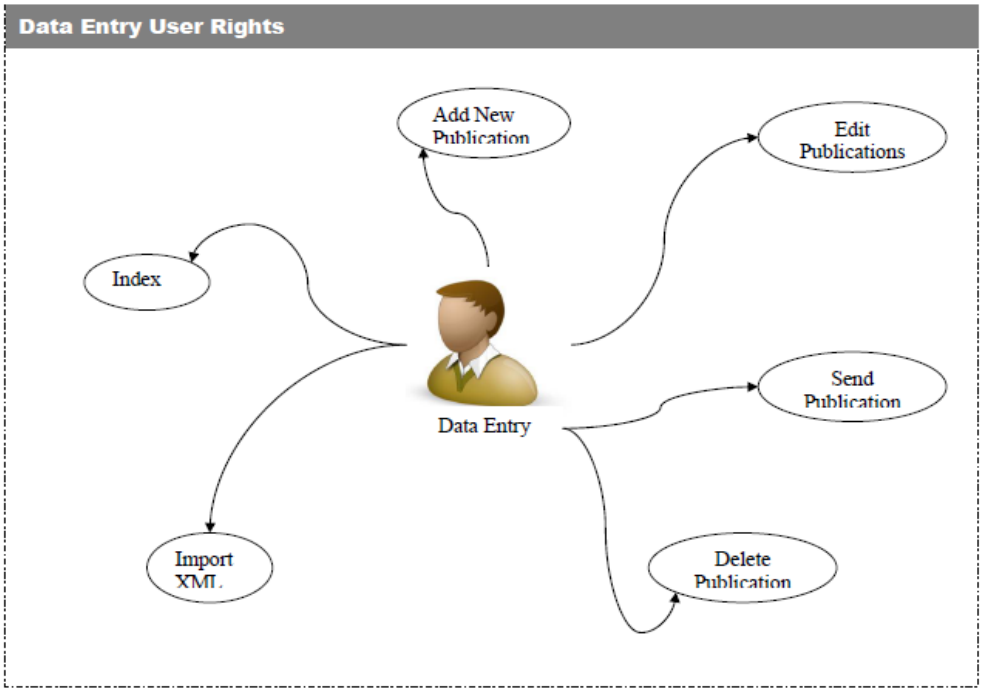


The institute administrator is assigned by national administrator, and is responsible for:

1- Add/Edit/Enable/Disables institute Data Entry users
2- View/Edit/Publish/Reject/Delete publications sent by institute Data Entry.
3- View/Delete published publications
4- Import XML files
5- Indexing
6- Harvester

2. Data Entry Staff

The institute data entry user type mainly works with publications. s/he can create any type of publication and manipulate it as long as it is still draft in his/her “Work in progress” view or the “Rejected” view.



The Data Entry is assigned by Institute administrator and is responsible for:

1- Add publications.

2- View/Update/Delete Publications that are added but not yet sent to institute administrator.

3- View published publications.

4- Import XML files.

5- Indexing.

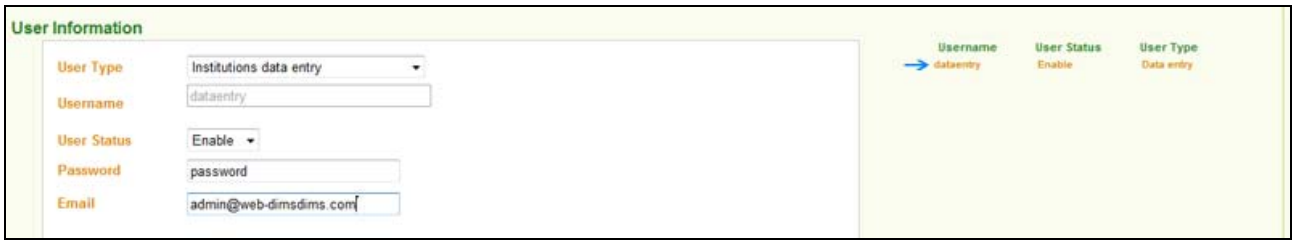
3.2 User management Module

The user manager functionality is an extra capability that allows the institute admin to create any number of institute data entry users, and can also disable any account.

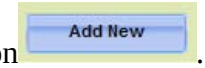
Display users

1. Login with institute Institution Administrator credentials.
2. Click **User Manager** from main page to open the institute user manager page, which contains the institute's name link.
3. Clicking the institute's name link, WEB-DIMS redirects to a page that contains an add button, that allows admin of adding users.
4. Press the "Add New" button

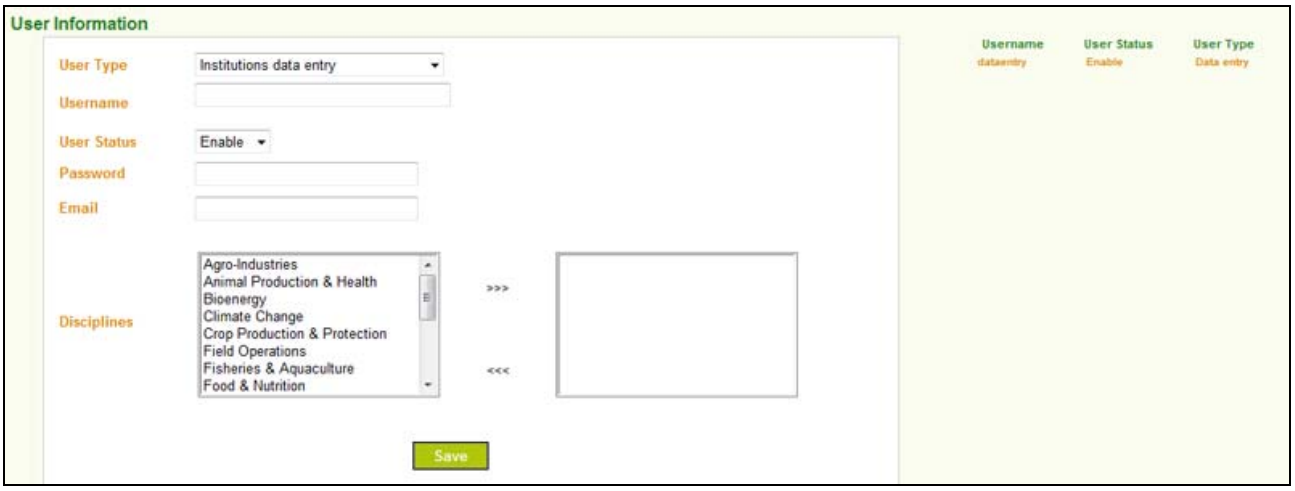
.
5. Table of existing users will be displayed below along with user information form.
6. Click on a username to display user's information in the form above.



Add New User

1. Login with institute Institution Administrator credentials.
2. Click **User Manager** from main page to open the institute user manager page, which contains the institute's name link.
3. Clicking the institute's name link, WEB-DIMS redirects to a page that contains an add button, that allows admin of adding users.
4. Press the "Add New" button 

.
5. New "**User Information**" form opens, in addition to existing users with their status listed below in page.

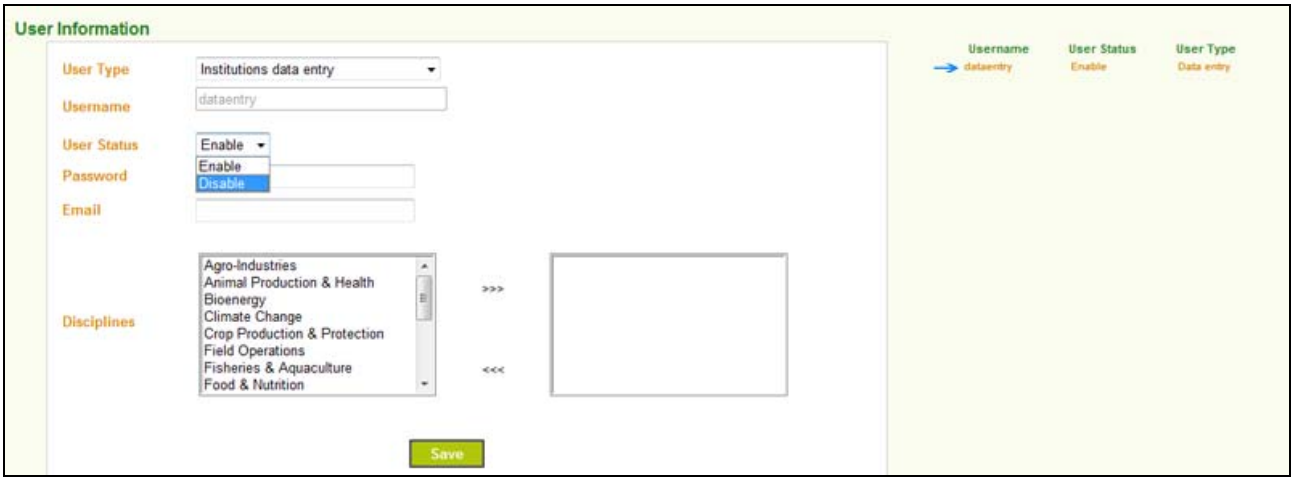


6. Fill in user information (name, password, and email) , and select user status.
7. Press **Save** button to create user account and it will be listed below in the same page.

Disable/Enable user

1. Login with institute Institution Administrator credentials.
2. Click **User Manager** from main page to open the institute user manager page, which contains the institute's name link.
3. Clicking the institute's name link, WEB-DIMS redirects to a page that contains an add button, that allows admin of adding users.
4. Press the "Add New" button

.
5. Table of existing users will be displayed below user information form.
6. Click on a username to display user's information in the form above.
7. Change user status to disable from the list box, then press the "**Save**" button.



8. Try to login using this user account, the login fails and WEB-DIMS displays the login page again (User will not be able to log any more to WEB-DIMS).

9. To “Enable” a user, repeat steps 6 & 7 but this time for a user whose status is denoted “Disabled”.

Edit an Existing user’s information

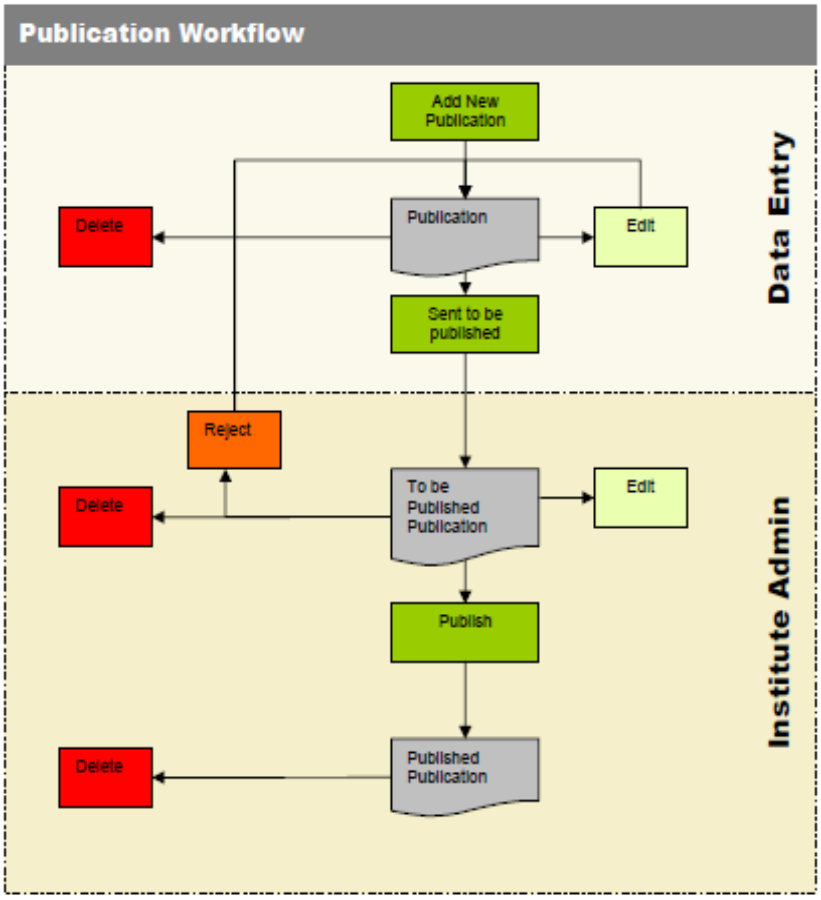
1. Login with institute Institution Administrator credentials.
2. Click **User Manager** from main page to open the institute user manager page, which contains the institute’s name link.
3. Clicking the institute’s name link, WEB-DIMS redirects to a page that contains an add button, that allows admin of adding users.
4. Press the “Add New” button

.
5. Table of existing users will be displayed below along with user information form.
6. Click on a username to display user’s information in the form above.
7. Make changes to password and email as required, then press save button to update user’s information.

3.3 Publications Module

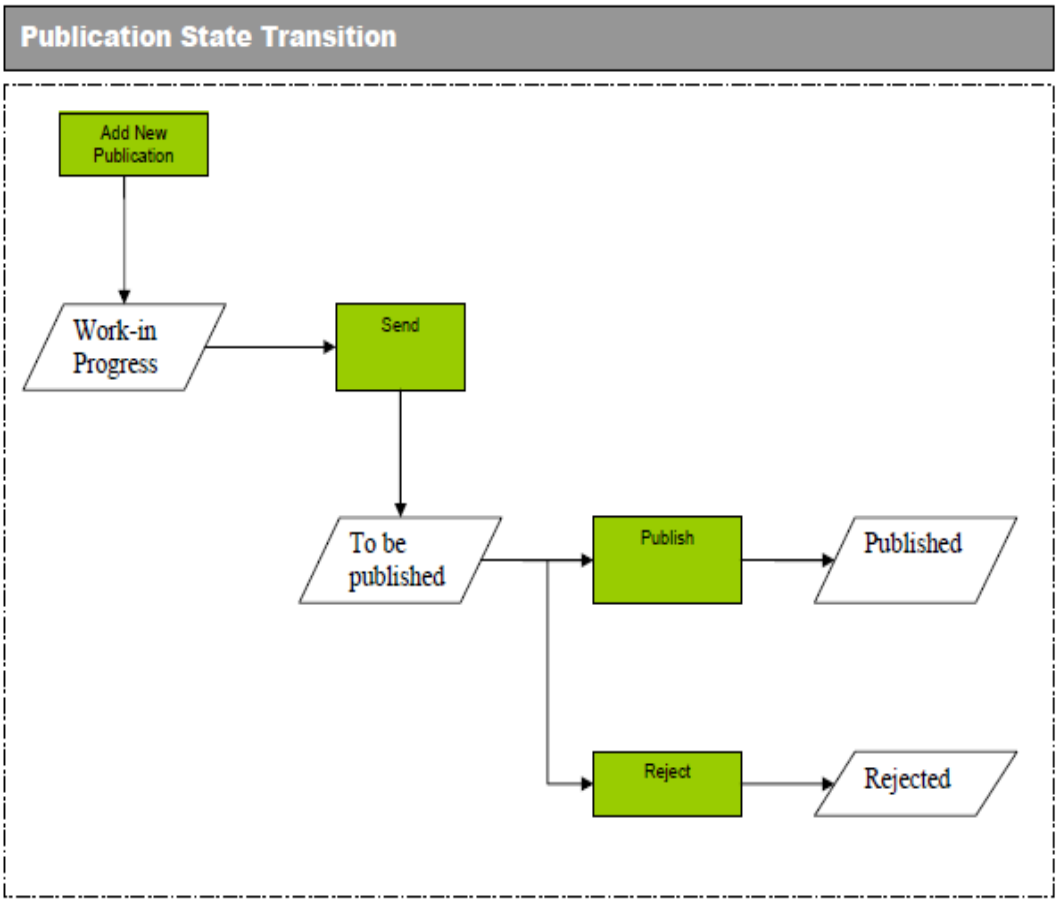
3.4 Publication Workflow

Publication workflow based on the following scenario (See figure):
A **data entry staff** may add a new publication record and has authority to edit or delete it at any point in time until s/he submits it for approval. Then s/he sends the record to **Institute Administrator** for approval. Once it reaches the "To be published" state the data entry staff will no longer have any access to it unless it gets rejected by **Institute Administrator**.
On the other side, the **Institute Administrator** has authority to edit and delete the records before publishing, and to publish it as well. Once a publication is published, it is not editable any more to any of the system actors, but the institute administrator can only delete it.



3.5 Publication State –Transition

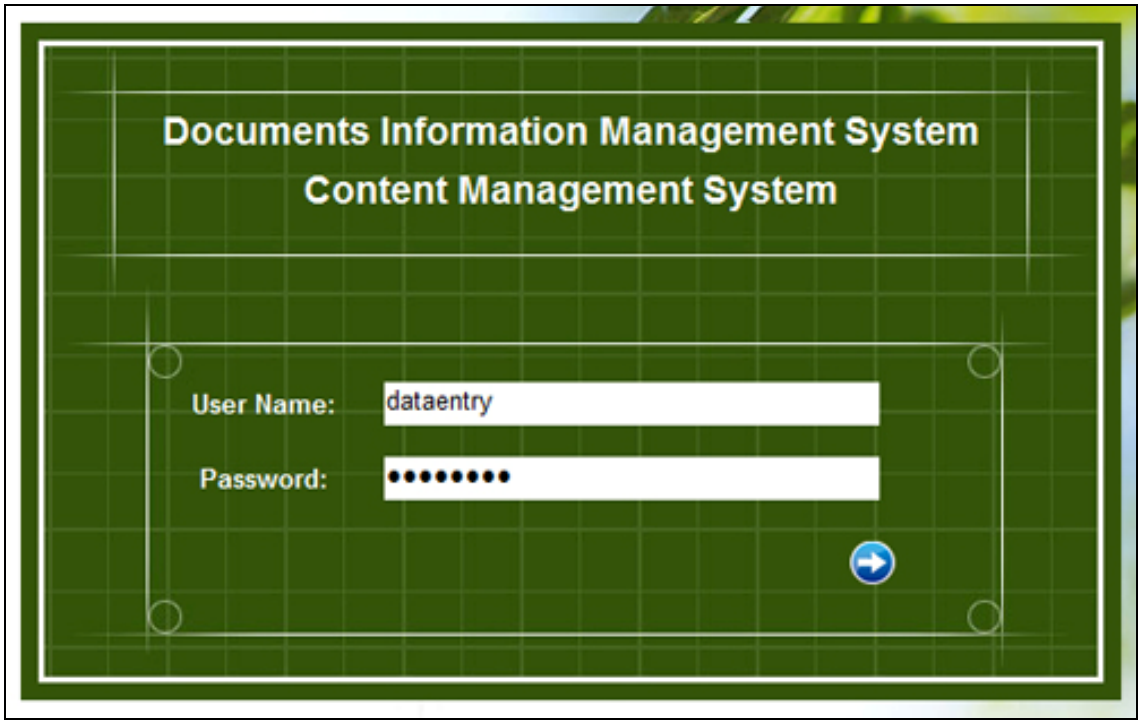
State/ view	Actor	State Description
Work in Progress	Data Entry	Draft records added and are not sent yet to institution administrator for approval.
To be Published	Admin	Records sent by data entry staff to institution administrator
Published	Admin	Records that are published by institution administrator
Rejected (by Publisher)	Data Entry	Records that are rejected by institution administrator and return back to data entry staff to be edited and resend again administrator, or deleted forever



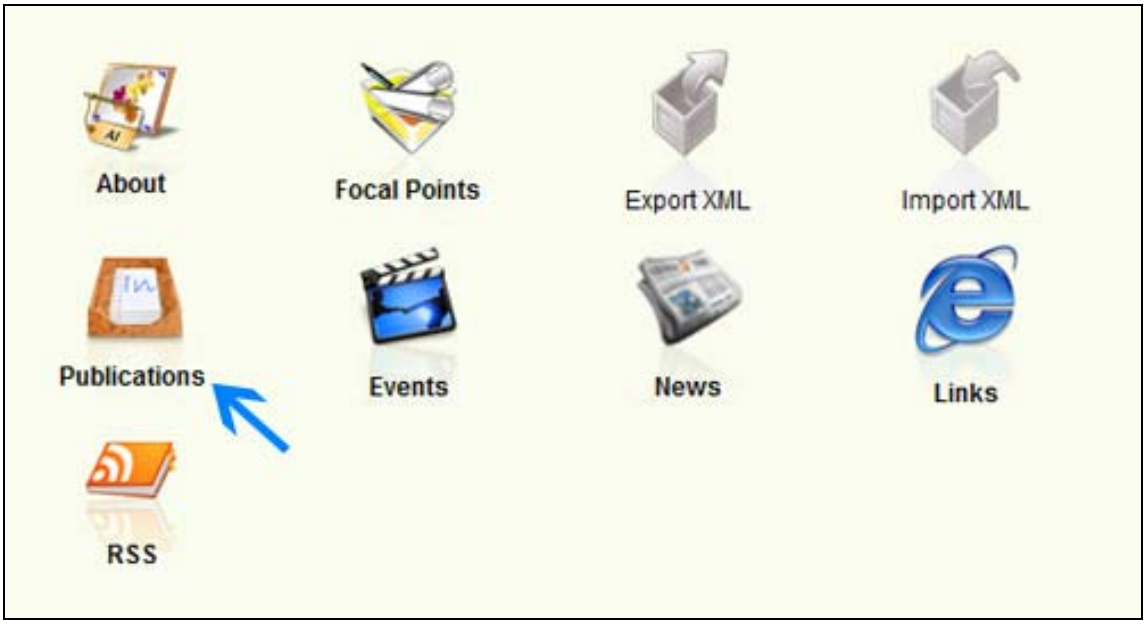
3.6Description & Data Entry

Add New Item (or Publication)

1. Open WEB-DIMS login page, by opening the browser and type "http://web-dims.com/login.aspx". Or by clicking on WEB-DIMS Login link at WEB-DIMS front-end.
2. Types your username and password, which was assigned to you by Institution Admin, then click **Login**.



WEB-DIMS main page will be displayed (as figure below).



3. Clicking **Publications** link, will display Publications main page.

4. Click **Add New** link to display data entry worksheet.

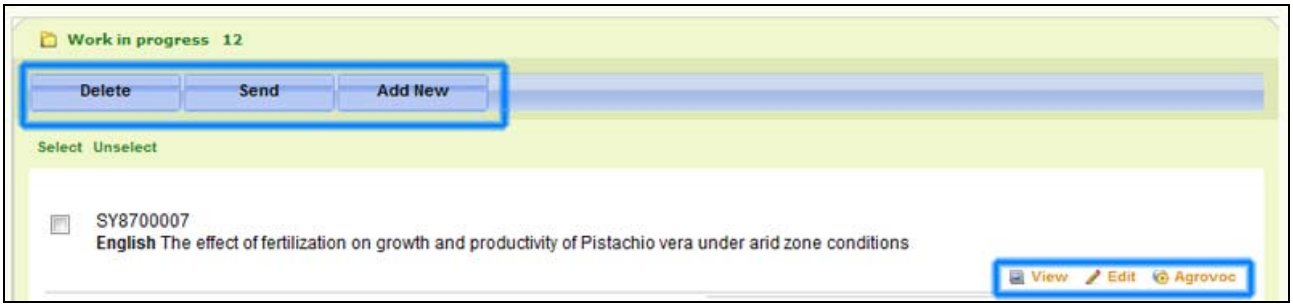
5. Complete the publication data in the form through six steps.

6. Finally, save record by click **Save** button**.**

***Note**: By saving the record, the publication record is added but not sent to the Institution admin.*

Edit/Delete/send Item (or Publication)

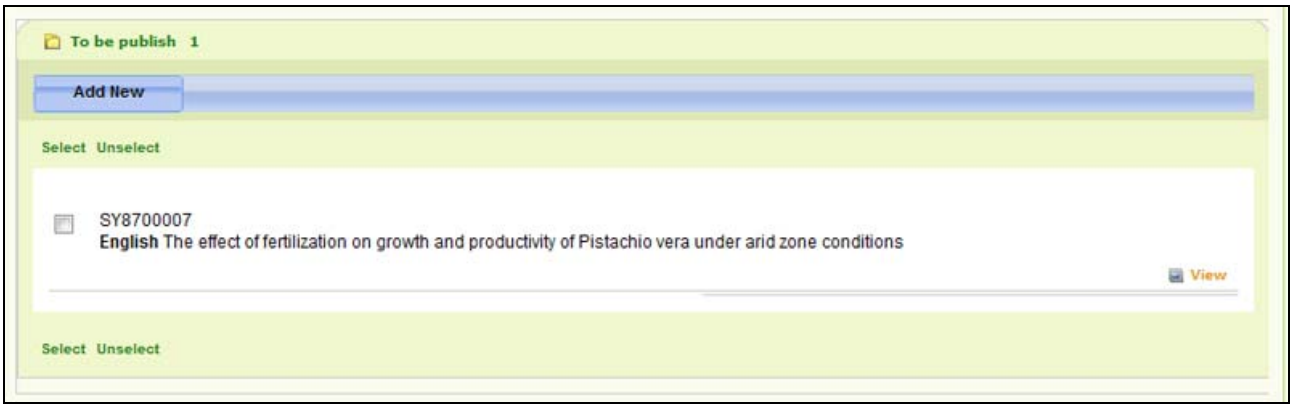
1. Open WEB-DIMS login page, by opening the browser and type "http://web-dims.com/login.aspx". Or by clicking on WEB-DIMS Login link at WEB-DIMS front-end.
2. Types your username and password, which was assigned to you by Institution Admin, then click **Login**.
3. WEB-DIMS main page will be displayed.
4. Click work in progress from the left menu
5. All Publications' records added but not send to Institution admin will be displayed associated with option bar.
6. To edit, delete and/or send a record, Click corresponding option as follow:
   - **Delete** under Record name *the record will be deleted.*
   - **Edit** to update a record, and make any changes then click save button, and *the record will be updated.*
   - **Send** a publication record to Institution Admin for approval. *After sending the record for approval, (Data Entry) you have (has) no right to edit or delete that record until returned to him by Institution Admin.*



Display Publications' Records Status

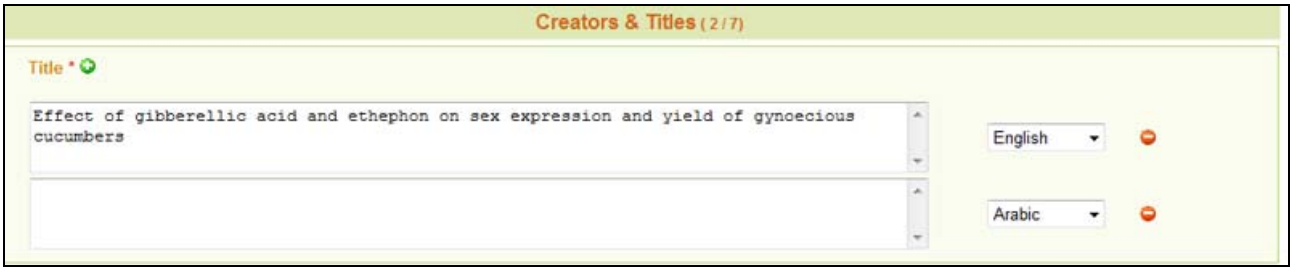
1. Login to WEB-DIMS main page as mentioned before.
2. To display records added but not yet sent to Institution Admin for approval, select **work in progress** from status combo box.

   *Note: This view is available **only** for institute data entry*
3. To display records sent to Institution admin but not yet approved, select **To be published** from the combo box.
4. display records approved by Institution Publisher and published, select **Published** from the combo box.
5. To display records those are rejected by Institution Admin and return back to be edited or deleted, select **Rejected by publisher** from the combo box.

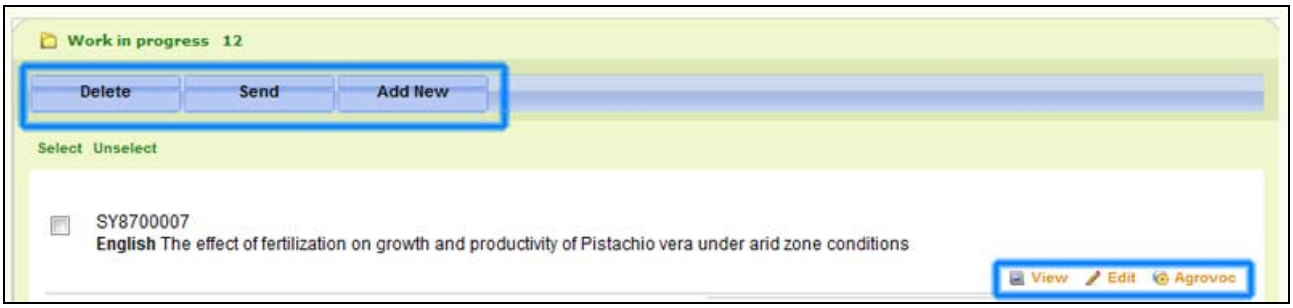

To be publish 1
Add New
Select Unselect
SY8700007
English The effect of fertilization on growth and productivity of Pistachio vera under arid zone conditions
View
Select Unselect

Adding multiple titles with different languages for the same "Publication"

1. Login with institute data entry credentials.
2. Click **Publications** link.
3. Click **Add New** link in the Publications main page, and enter a valid ARN.
4. In the "Creator & Titles" page, type a title (the first title), and select a language from the list box.
5. Press the (+) button next to the title, *A new empty title area will appear on the page.*
6. Type another title in a different language (the second title), and select a language from the list box.


Creators & Titles (2 / 7)
Title *
Effect of gibberellic acid and ethephon on sex expression and yield of gynoecious cucumbers
English
Arabic

7. Complete the data in the form through six steps.
8. Click **Save.**
9. View the publication's information and you will find both titles displayed as shown in figure below.



Adding multiple "Abstracts" with different languages for the same "Publication"

1. Login with institute data entry credentials.
2. Click **Publications** link.
3. Click **Add New** link in the Publications main page.
4. Enter the ARN, and creators & Titles required data, then select Abstract step.
5. Fill in the existing abstract field and select a language.
6. Press (+) button, A new empty abstract area will appear on the page.
7. Type another abstract in a different language (the second abstract), and select a language from the list box.
8. Finish the publication creation steps & click Save.
9. View the publication's information and you will find both abstracts displayed as shown in figure below.

DIMS Record

Record number	IQ1996010126
Titles	Effect of gibberellic acid and ethephon on sex expression and yield of gynoecious cucumbers
Personal Authors	Al-Juboory, K.H.,(Baghdad Univ. Coll. of Agric. (Iraq)),; Splittstoesser, W.E. ,(Univ. of Illinois (USA)),
Publication Date	1994
AGRIS Subj. Cat.	;
AGROVOC Terms	Ga, Ethephon, Yields, Cucumis sativus, Cucumbers, Males, Females, Greenhouses
Language	
Abstract	Gibberellic acid (GA3) promoted maleness and 2-chloroethyl phosphonic acid (ethephon) promoted femaleness in cucumber (Cucumis sativus L.) cv.Regal 44 with water, ethephon (250 or 350 ppm) or GA3(1000 or 2000 ppm) at the 1,2,or 3-leaf stage. Seedlings treated with ethephon at all stages produced more fe water or GA3 treatments.GA3-treated seedlings produced significantly more male flowers than water treatments, at all developmental stages. The differential seedlings treated at different stages indicated the importance of timing growth regulator applications
Type	Summary
Availability	
Availability number	1996010126
Serial Title	The Iraqi Journal of Agricultural Sciences
Serial number	v. 25 (no.1) p. 34-41
Serial Date	1994

This document is available from the following **AGRIS Centre**:

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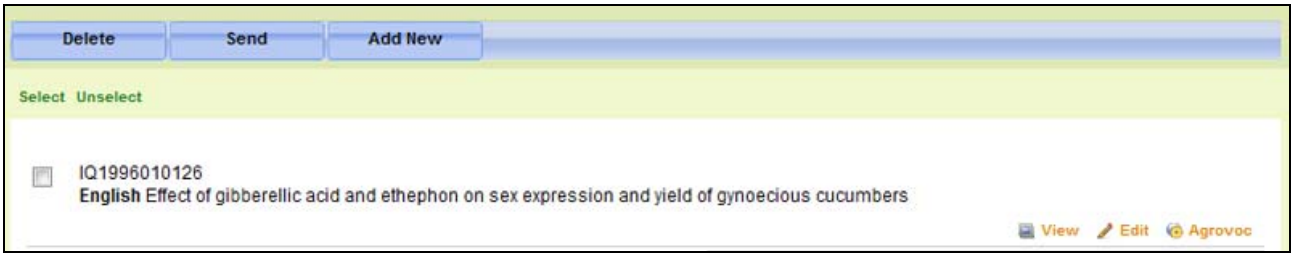
3.7 Reviewing and publish (For Institution Admin)

The Institution Administrator receives publications' records from Data Entry and is responsible for edit, delete, reject, index and/or publish of those records.

Edit Publications' records

1. Login with institute Institution Administrator credentials.
2. Click **Publications** link to display publications waiting to be published.



3. To edit a Publication record, click **Edit.**
4. Make any necessary changes to record, and then click **Save** to complete updating.

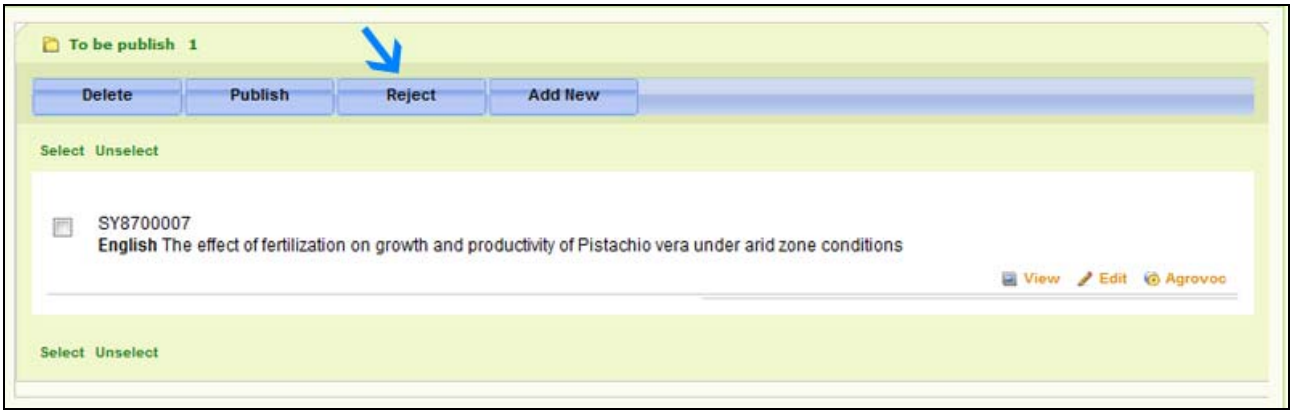
Delete Publications' records

1. Login with institute Institution Administrator credentials.
2. Click **Publications** link to display publications waiting to be published.
3. To delete a Publication record, click **Delete.**
4. To delete a published publication, select "Published" view from status list box, and then click "Delete" under any of the displayed publications.

***Note**: Institute Administrator can NOT delete a rejected publication. This option is available only for data-entry (staff) operator as he is the owner of rejected documents.*

Reject Publications' records

1. Login with institute Institution Administrator credentials.
2. Click **Publications** link to display publications waiting to be published.
3. To reject a publication record, simply click **Reject** link in option bar below the record.



4. The record returns back to data entry staff for editing, and will appear under "Rejected by publisher" view.

Index/Publish Publication

1. Login with institute Institution Administrator credentials.
2. Click **Publications** link to display publications waiting to be published.
3. Select any document and click its corresponding Index/Publish button.
4. The document will be published, and will appear in the published view. All WEB-DIMS Front-end users can search & browse this published publication.

> ***Note***
>
> Status and Order By list boxes are available also for institution administrator, as for data entry, with options suits his role (See 1.3, 1.4 for more information)

(4) Data/Publications Indexing, Cataloguing and Quality Control

4.1 AGRIS Application Profile (AGRIS AP)

Element	Definition	Rules for Encoding
Resource Number (ARN)	**A unique numbering system to differentiate between resources from the different AGRIS Resources Centres**	▪ The ARN consists of twelve characters which may be derived from the following four parts: ▪ The Input Country Code (2), Year (4), the sub-centre (1), serial Number (4). Ex: JO2010200023
Title	**A name given to the resource.** **Used to indicate the name by which the resource is formally known.**	▪ Use the exact wordings of the title, but not necessarily its capitalization and punctuation. Correct obvious typographical errors. Capitalize only the initial letter of the first word of the title and of proper names (personal, corporate, geographic, etc.) appearing in it. ▪ Omit any punctuation marks at the end of the title, but retain terminal question marks "?" and exclamation marks "!", terminal brackets "]" and parentheses ")". Retain the full stop "." if the last word of the title is an abbreviation. ▪ Use a full stop and a space to separate main title and sub title and other secondary elements. ▪ When titles are meaningless, incomplete, ambiguous, misleading, or too general, title enrichment is highly recommended. All additional words should be enclosed in square brackets and either placed at the end of the original title or be interpolated in the title where most suitable, but generally not before the third word in the title. ▪ In the rare cases where no **title** appears on the resource, for example, in certain editorial articles, supply a title and enclose it in square

		brackets "[ ]". ▪ If the original title of the resource is translated by the cataloguer enter the information in the Alternative Title field. This filed must be supplemented with the language of the translation.
Personal Creator	**Person responsible for creating the intellectual content of the resource. There may be more than one.**	▪ When multiple names appear on the resource, they should all be listed in the sequence shown on the resource. ▪ In general, data in the personal creator field are entered in the following sequence: ***surname, forename initial(s), prefixes, particles, role, affiliation.*** ▪ However, in the case of some **Asiatic or African** names, the full name without comma and/or full stop is also accepted provided it is used consistently. ▪ **Arabic names** with prefixes such as El, Ben, Hadj, Ould, Beni are written preferably with a hyphen, e.g. El-Midani; Ben-Salem; Hadj-Wali; El-Hadi-Amor; Ould-Brahim ▪ **Academic titles** are **not** entered. ▪ For those creators who contributed to the intellectual content, if possible, specify their role in as shortest form possible. For editors and compilers, use ed. Or comp. respectively. For all other roles, do not abbreviate. Ex: Ali, A. (ed.) **Affiliations are preferably entered in a standardized form according to rules for corporate creator, as shown in the following section on rules for entry of Corporate Creator.**
Corporate Creator	**Organization or agency responsible for creating the intellectual content of the resource.**	▪ It can be an issuing body in conjunction with a personal author, the assignee of a patent, an academic institution granting degrees or

		a country issuing legislative literature. ▪ when it consists of only the main institution, it is entered in the following sequence: ***Name of institution, Place (Country)*** ▪ If it consists of subordinate bodies**,** it is entered in the following sequence: ***Main Institution, Place of the subordinate body (Country). Smallest subordinate body*** ▪ **If no place is given,** add at least the country name between parentheses. ▪ When **multiple corporate creators** are indicated in your resource, **all** of these names should be entered in your record. **All the above rules hold for entering affiliations.** Affiliations **are always given between parentheses.**
Conference as Creator	Conferences are named meetings of individuals or representatives of various bodies for the purpose of discussing and acting on topics of common interest, or meetings of representatives of a corporate body that constitute its legislative or governing body.	▪ Provide the Conference name in the language it is available. Follow the rules for capitalization of corporate creators. ▪ Enter in this field the name of the **conference, symposium, workshop, seminar** or any kind of **meeting** of which your resource constitutes the proceedings, a paper, a series of papers, or summaries. ▪ The conference number is mandatory when available. Use **Arabic numerals** followed by a period. Ex: 1. not 1st; 20. not XX ▪ The conference place and country is mandatory when available. ▪ If no other place is available include at least the name of the country. ▪ The place should include the name of the locality (city or town or institution) followed by the element required to

		identify that locality unequivocally. The place must always be followed by the name of the country in which the meeting was held. ▪ **Separate place elements** with a comma and a space. Enclose the name of the country between parentheses. ▪ Enter in this field the date(s) on which the conference was held. The date consists of day-month-year. **Ex:** 25 Aug 2000 2-4 Sep 2002 19 Jun - 4 July 1976 **29 Dec 1979 - 2 Jan 1980**
Publisher Name	**A publisher is the individual, group, or organization named in the document as being responsible for that document's publication, distribution, issuing, or release.**	▪ Copy the name of the publisher as given on the resource, but omit such words as "Incorporated, Sons, Limited" etc. Also omit such phrases as "Published by". ▪ Use an acronym or an abridged form of the name of the publisher in this field if the publisher's name is identical with the name entered in Corporate Creators (See 4.3.2). ▪ When an item has been published by an institution on behalf of another, enter this information. Ex: CAB for FAO ▪ When there is no publisher, enter (np) in parentheses. Note**: Do not substitute the name of the publisher with that of a printer when no publisher is given.**
Place of Publication	It is the city, town, or other locality associated with the name of the publisher entered in the Publisher field.	▪ Enter in this field the place and country of the publisher indicated in the Publisher field. ▪ Copy the name of the locality as it appears on the publication, transliterated, if required. Abbreviate names of states, counties, etc.

		according to local use. ▪ Add to the name of the locality the name of the country and enclose it between parentheses. ▪ When **no place** is mentioned on the item, supply one (e.g. by consulting a reference work) and enter it in parentheses. Ex: (Amman) (Jordan) ▪ Also, if there is nothing else, use the place of the institution associated with the creator. **If no place is given, supply one, if it can be easily identified, or add " [sl]" or "[np]".**
Date of Publication	A date of an event in the lifecycle of the resource. Date when the resource was made available to the public.	▪ The date is standardized, abbreviated and entered in one of the following formats: ***day month year; season year; month year or year*** ▪ The year is expressed by a four digit numeral. Express the name of the month or season in abbreviated form. ▪ If a range of dates is given, as may be the case with journals or with multi-volume monographs, show both the beginning and the end date. Spaces are omitted if days, months or years are standing next to each other, Ex: 1-5 Feb 1997 Jan-Feb 1997 1996-1997 ▪ If the date has been estimated by the cataloguer, enclose it between square brackets. Ex: [2008] ▪ A question mark may be used after the year if the date is estimated but uncertain. [1997?] ▪ For patent documents the date may refer to the date of publication or to the date of the filing application. If both are given on the resource

		enter the date of publication as Date Issued and the filing date in the note field.
Subject Classification	A system of classifying information resources whereby main classes and sub-classes are designated by codes.	▪ The field is used to provide the subject category which describes the content of the resource. It allows for systematic arrangement and browsing of resources. ▪ The subject categories can be selected, preferably, from AGRIS/CARIS Categorization Scheme. ▪ Other possible classifications schemes are: *CABI Codes (CABC)* *Dewey Decimal Classification (DDC)* *Library of Congress Classification (LCC)* ***Universal Decimal Classification (UDC)***
Subject Thesaurus	**A classified list of terms or keywords for use in indexing and information retrieval.**	▪ This field is used to provide descriptors from a controlled vocabulary. ▪ The AGRIS AP recommends the following choices of schemes. o AGROVOC; o CABI Thesaurus; o Aquatic Sciences and Fisheries Abstracts Thesaurus; o National Agricultural Library of United States; o Medical Subject Headings; o Library of Congress Subject Headings. **Other schemes, not listed above can also be used.**
Description Notes	**A brief statement, annotation, comment, or elucidation concerning any aspect of the resource.**	**Enter as a note any information deemed** necessary for the identification of the item. **Certain notes may be entered in prescribed ways (see Manual p. 38-39). If a specific note is not mentioned, use cataloguer's judgment in formulating the note.**
Description Edition	**Edition is the formally designated version of the data**	▪ This field should be completed **only when an**

	set or information resource being described. It denotes the existence of other versions of the work	**edition statement appears on the resource.** ▪ Do not provide an edition statement for the **first edition** of a publication. Drafts **are not edition statements. If it is considered necessary to record this information, put it into Description/Note.**
Description **Abstract**	An abstract is a summary of a document designed to give the user a clearer idea about the document's contents, but it is not intended to substitute for the resource itself.	▪ An abstract is not mandatory but should be supplied whenever possible. You may either copy abstracts which are available in the resource or you may compose your own. **Whenever possible, an abstract should state the purpose, methodology, results and conclusions presented in the original document.**
Identifiers (Standard Numbers)	**Identifiers (Standard numbers) are numbers taken from the item.**	▪ This field is used to enter numbers which can give unambiguous access to the document. ▪ Some of the commonly used schemes may be: **IPC**: International Patent Classification **ISBN:** International Standard Book Number **ISSN**: International Standard Serial Number **JN:** Job Number **PN:** Patent Number **RN:** Report Number URI: **Uniform Resource Identifier, when a resource is also electronically available.**
Type	**The nature or genre of the content of the resource.**	▪ Recommended best practice is to select a value from a controlled vocabulary (for example, the Dublin Core Types[4]). To describe the physical or digital manifestation of the resource, use the dc:format element (See 4.10).

		Other locally used "types" can also be included in this field.
Extent	The size or duration of the resource. Used to describe the physical extent of the documentary unit expressed in pages, volumes, numbers, parts, supplements used independently or in combination.	▪ **Print resources**: **Ex:** *a book*: **56 p.**; *a book with preface*: **xxii p. or 522 p.;** *a chapter in a book:* **p. 78-98;** *a Volume of multivolume monograph:* **v. 7;** *a series of volumes:* **9 v.;** *a supplement to a volume:* **v. 1 (suppl. 1);** *a monograph in two volumes:* **2 v. or v. 1:65 p.; v. 2: 70 p.;** *several issues of a series:* **vp.;** *an article in a serial:* **p. 26-34;** *a journal article issued in two separate language editions with same issue numbering but different pagination:* **En. ed.: p 2-9; Ar. ed.: p. 3-11** ▪ **Digital resources** **EX:** *Films:* **l9 min., 35mm;** *sound recordings:* **28 min.;** *CD-ROM:* **2 CDs;** *Online resources:* **1 Web Site** or **1 Web Page;** *Word File:* **345 KB;** *MPEG:* **2MB;** *PDF:* **20 KB**
Format Medium	**The material or physical carrier of the resource**	▪ For **printed** resources, **do not** use medium. ▪ For non-print resources, **use** medium to indicate the physical carrier. ▪ Some examples for medium include: **Microfilm, Microfiche, VCD, DVD, Audiotape, Reel, Film, Tape, CD-ROM, Videocassette, Videodisc, Videota, Internet Media Types (IMT).**
Language	**A language of the intellectual content of the resource**	▪ Language is a mandatory element for all types of resources, including those in which the text is only a summary. ▪ Enter in this field a three-letter code (ISO639-2) or the two letter code (ISO639-1) to indicate the language in which the text of the item appears. If the resource contains more

		than one language, repeat the language element. **For computer languages (ex. C++, Java, Basic), indicate them in Format/Medium.**
Relation	**A reference to a related resource.**	**Recommended best practice is to reference the resource by means of standard identifier. Usually a URI conforming to a formal identification system. For other identifiers (See 4.8)**
Relation Refinements	**Used to denote** type of relationship **between the described and the cited resources.**	**Types of relation include: whole and part; version relation; printed and digital format; cited document; a supplemented document, replaced document; translated document.**
Availability	**Availability provides users with the address and a number or code that is uniquely associated with an item, and serves to identify that item within an organization.**	**Availability information is provided in Availability Location and Availability Number elements.**
Location of **Availability**	An unambiguous reference to the location of the resource.	**Enter the address of the AGRIS Resource Centre, or the address of the institute where the resource is available. An *authorized form* of the name is preferred**
Availability **Number**	**An unambiguous reference to the resource within a given context.**	**This field is used to give the** accession number or other locally created number **of a resource,**
Source	A reference to a resource of which the current resource is a part.	▪ Information that can go into this field includes: ❖ Title and subtitle (See 4.2.1) ❖ Author (See 4.3) ❖ Edition statement (See 4.7.2) ❖ Place of publication (See 4.4.2) ❖ Publisher (See 4.4.1) ❖ Date of publication (See 4.5.2) ❖ Standard number (See 4.8) **Collation (if an analytic) (See**

		4.10.1)
Coverage	**The extent or scope of the content of the resource**	**This is used to provide information on coverage that includes spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity).**
Coverage Temporal	**Temporal characteristics of the intellectual content of the resource.**	▪ This is used to provide temporal periods (a period label, date, or date range) **Recommended best practice is to select a value from recommended schemes.**
Coverage Temporal	**Spatial characteristics of the intellectual content of the resource.**	▪ This is used to provide information on coverage that includes spatial locations (a place name or geographic coordinates) or jurisdiction. **Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and to use, where appropriate, named places or time periods in preference to numeric identifiers such as sets of coordinates.**
Rights	**Information about rights held in and over the resource.**	▪ Typically, *Rights* will contain a *rights management statement* for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. This provides information on the copyright as well as access rights of the users to the resource. **If the Rights element is absent, no assumptions may be made about any rights held in or over the resource.**

Rights Statement	Written assertion of ownership rights relating to resource	**Enter either a textual statement or a URL pointing to a rights statement, or a combination, when a brief statement and a lengthier one are available.**
Rights Terms of use	**Extent and manner of use permitted to, and restrictions covering use of resource by the public**	▪ This is used to provide information of the accessibility of any resource. It offers Information on whether a resource is freely accessibility or restricted and the level of restriction. **Enter a statement that indicates the level of access to the resource..**
Citation Title	The serial title, also known as the key-title, is a name ascribed to a serial publication and is inseparably associated with its ISSN.	▪ Enter in this field the serial title of the serial selected for input from a journal article, or a single volume in a monographic series. **Refer to AGRIS AP, p. 66-70 for the encoding rules of: titles with generic word; first word articles; acronyms and initials; numbers; punctuations; identical titles; editions in different languages; supplements; serial published within another serial; parallel titles**
Citation Identifier	A global standard identifier of a journal. This would usually be an ISSN, but may follow some other standards such as CODEN.	**The International Standard Serial Number is recorded in this field as an eight-digit code (retain the hyphen). Ex: 0029-0245**
Citation Number	The issue, part or number which denotes a particular issue of a journal, as it appears on the cover. In many cases this indicates a part of a journal volume.	▪ Issue Numbers are denoted differently in different journals, e.g. 'part', while some journals are arranged by year, e.g. 12/1999 in which case the year is effectively the volume. Any page numbers go into Format extent element Other examples include v. 9 v. 3(2) v. 1 (suppl. 1)

		v. 17(4, pt. 1) **v. 13-16**
Citation Chronology	It is the formal date of a particular issue of a journal, as it appears on the cover in conjunction with the serial title.	▪ This may be different from the actual **date of publication** of the issue, which should be encoded in Date Issued (date of publication) (See 4.5.3).
Element	Definition	Rules for Encoding
Resource Number (ARN)	**A unique numbering system to differentiate between resources from the different AGRIS Resources Centres**	▪ The ARN consists of twelve characters which may be derived from the following four parts: ▪ The Input Country Code (2), Year (4), the sub-centre (1), serial Number (4). Ex: JO2010200023
Title	A name given to the resource. Used to indicate the name by which the resource is formally known.	▪ Use the exact wordings of the title, but not necessarily its capitalization and punctuation. Correct obvious typographical errors. Capitalize only the initial letter of the first word of the title and of proper names (personal, corporate, geographic, etc.) appearing in it. ▪ Omit any punctuation marks at the end of the title, but retain terminal question marks "?" and exclamation marks "!", terminal brackets "]" and parentheses ")". Retain the full stop "." if the last word of the title is an abbreviation. ▪ Use a full stop and a space to separate main title and sub title and other secondary elements. ▪ When titles are meaningless, incomplete, ambiguous, misleading, or too general, title enrichment is highly recommended. All additional words should be enclosed in square brackets and either placed at the end of the original title or be interpolated in the title where most suitable, but generally not

		before the third word in the title. ▪ In the rare cases where no **title** appears on the resource, for example, in certain editorial articles, supply a title and enclose it in square brackets "[ ]". ▪ If the original title of the resource is translated by the cataloguer enter the information in the Alternative Title field. This filed must be supplemented with the language of the translation.
Personal Creator	**Person responsible for creating the intellectual content of the resource. There may be more than one.**	▪ When multiple names appear on the resource, they should all be listed in the sequence shown on the resource. ▪ In general, data in the personal creator field are entered in the following sequence: ***surname, forename initial(s), prefixes, particles, role, affiliation.*** ▪ However, in the case of some **Asiatic or African** names, the full name without comma and/or full stop is also accepted provided it is used consistently. ▪ **Arabic names** with prefixes such as El, Ben, Hadj, Ould, Beni are written preferably with a hyphen, e.g. El-Midani; Ben-Salem; Hadj-Wali; El-Hadi-Amor; Ould-Brahim ▪ **Academic titles** are **not** entered. ▪ For those creators who contributed to the intellectual content, if possible, specify their role in as shortest form possible. For editors and compilers, use ed. Or comp. respectively. For all other roles, do not abbreviate. Ex: Ali, A. (ed.) **Affiliations are preferably entered in a standardized form according to rules for corporate creator, as shown in the following section on rules**

		for entry of Corporate Creator.
Corporate Creator	**Organization or agency responsible for creating the intellectual content of the resource.**	▪ It can be an issuing body in conjunction with a personal author, the assignee of a patent, an academic institution granting degrees or a country issuing legislative literature. ▪ when it consists of only the main institution, it is entered in the following sequence: ***Name of institution, Place (Country)*** ▪ If it consists of subordinate bodies**,** it is entered in the following sequence: ***Main Institution, Place of the subordinate body (Country). Smallest subordinate body*** ▪ **If no place is given,** add at least the country name between parentheses. ▪ When **multiple corporate creators** are indicated in your resource, **all** of these names should be entered in your record. **All the above rules hold for entering affiliations.** Affiliations **are always given between parentheses.**

4.2 AGROVOC, Metadata and Ontologies

AGROVOC

Multilingual Agricultural Thesaurus

What is AGROVOC?

AGROVOC is a multilingual structured thesaurus of all subject fields in agriculture, forestry, fisheries, food and related domains (e.g. environment). It consists of words or expressions (terms), in different languages and organized in relationships (e.g. “broader”, “narrower”, and “related”), used to identify or search resources. Its main role is to standardize the indexing process in order to make searching simpler and more efficient, and to provide the user with the most relevant resources.

Who developed AGROVOC?

The AGROVOC Thesaurus was developed by FAO and the Commission of the European Communities, in the early 1980s. It is updated by FAO roughly every three months, and the user can see the specific changes on the AGROVOC website.

Who uses AGROVOC?

AGROVOC is used all over the world, mostly for indexing and retrieving data in agricultural information systems. Access figures for last year (2004) reached a peak of 180, 000 hits in the month of June alone, with an average of 5,400 hits on any weekday. About ninety countries regularly access AGROVOC on-line.

In what language is it available?

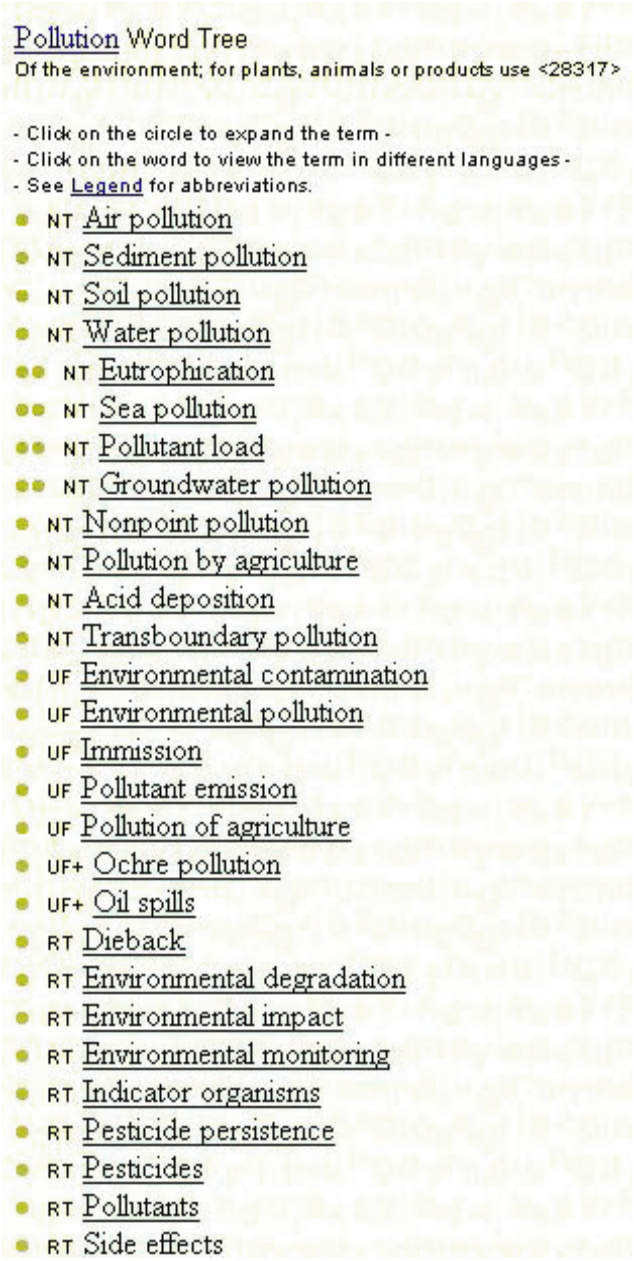
AGROVOC is available in the five official languages at FAO, which are English, French, Spanish, Chinese and Arabic. It is also available in Czech, Portuguese and Thai. Other languages such as German, Italian, Korean, Japanese, Hungarian, and Slovak, are currently either being translated or revised.

Why is AGROVOC multilingual?

AGROVOC is used world-wide, so it is imperative to translate the thesaurus into as many languages as possible in order to make it easier for the users to index or search information sources in their own language. National organizations and institutes are invited to translate AGROVOC into their local languages, and should contact the AGROVOC team at FAO-Agris-Caris@fao.org to discuss the procedure.

How is AGROVOC structured?

AGROVOC is made up of terms, which consist of one or more words representing always one and the same concept. For each term, a word block is displayed, showing the hierarchical and non-hierarchical relation to other terms: **BT** (broader term), **NT** (narrower term), **RT** (related term), **UF** (non-descriptor). **Scope notes** are used in AGROVOC to clarify the meaning and the context of terms. Taxonomic and geographical terms are marked for easy searching, filtering and downloading.



Pollution Word Tree

Of the environment; for plants, animals or products use <28317>

- Click on the circle to expand the term -
- Click on the word to view the term in different languages -
- See Legend for abbreviations.

- NT Air pollution
- NT Sediment pollution
- NT Soil pollution
- NT Water pollution
  - NT Eutrophication
  - NT Sea pollution
  - NT Pollutant load
  - NT Groundwater pollution
- NT Nonpoint pollution
- NT Pollution by agriculture
- NT Acid deposition
- NT Transboundary pollution
- UF Environmental contamination
- UF Environmental pollution
- UF Immission
- UF Pollutant emission
- UF Pollution of agriculture
- UF+ Ochre pollution
- UF+ Oil spills
- RT Dieback
- RT Environmental degradation
- RT Environmental impact
- RT Environmental monitoring
- RT Indicator organisms
- RT Pesticide persistence
- RT Pesticides
- RT Pollutants
- RT Side effects

Multilingual Agricultural Thesaurus

Is AGROVOC available free of charge?

AGROVOC can be downloaded freely for non-commercial use. It is available in MySQL, TagText, ISO2709, XML, and Microsoft Access formats. To download the AGROVOC database, please send your request to FAO-Agris-Caris@fao.org. When sending the request, please specify the following: Full name, Email, Organization, Reason for downloading AGROVOC, and any questions you may have.

How can I suggest a term?

AGROVOC users are encouraged to propose terms for inclusion in the database. Their suitability is then assessed by the AGROVOC team in FAO. Send your suggestions to the AGROVOC team at FAO by email to FAO-Agris-Caris@fao.org.

What will be the future of AGROVOC?

AGROVOC is the foundation that underpins the development of the Agricultural Ontology Service (AOS) project.
Using the knowledge contained in vocabulary systems and thesauri such as AGROVOC, the AOS will be able to develop specialized domain-specific terminologies and concepts that will better support information management in the Web environment. A key objective is to add more semantics to the thesaurus, for example, by expanding and better specifying the relationships between concepts.

Giving more meaning to relationships in AGROVOC

A thesaurus has equivalence (USE/UF), broader term (BT), narrower term (NT), and related term (RT) relationships.

These relationships provide the scope and structure for the thesaurus. For instance, knowing that a broader term for “cereals” is “plant products” and that narrow terms are “maize” and “rye” defines the scope of information represented by these terms.

There has been considerable discussion recently, relating to extending this core set of relationships. In the late 1990s, the American Library Association Sub-committee on Subject Relationships/Reference Structures examined over 165 relationships in the English language alone, and from these produced a checklist of twenty candidate subject relationships for information retrieval.

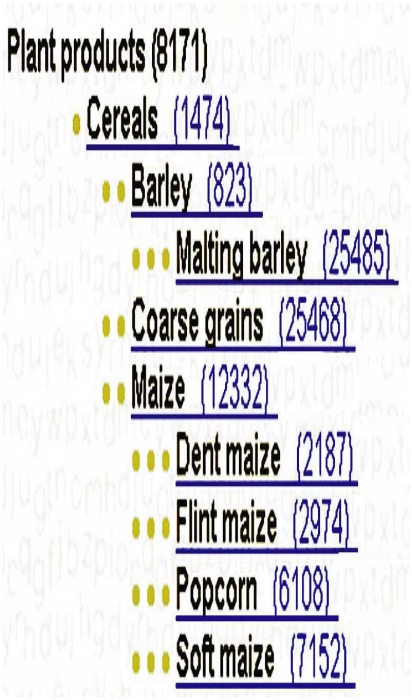
We can use an extended set of relationships to perform more granular and more consistent indexing, and to enable more effective searching and browsing for users. We need to formalize rules for their development and implement processes for using them in indexing and retrieval.

For example, for the term "pollution" we can describe the associations the term has with other terms. For instance, "pollutants" is formally associated with the term "pollution" using the Related term (RT) relationship. In practice, when describing the type of association, we may be able to indicate explicitly that "pollutants" cause "pollution", thus making the relationship more meaningful than simply portraying them as Related Terms (RT).

A searcher requesting information about the term "pollution" would be presented with the option to limit his/her search to particular kind(s) of relationships, e.g. "Would you like to see all the causes of pollution?" The prospect for retrieval of more relevant resources is greatly increased.

Ontological relationships also help to eliminate the need to do multiple searches. For example, a researcher might be interested in finding resources about the types of infestations of tomatoes.
Instead of having to do multiple searches for each type of infestation (e.g. “tomatoes AND tomato mosaic tobamovirus”, “tomatoes AND fungal wilt”), he/she can request the use of a formally defined ontological relationship “infecting agent” with the topic “tomatoes”.

Each tomato infestation resource in his/her system has been indexed using this relationship. By using it, he/she saves himself/herself the work of having to do multiple searches, and instead retrieves just what he/she needs through a single request.



METADATA

Managing information at FAO

The problem

Imagine you have been asked to arrange your organization's collection of books into a library; what will be your first thoughts? You will probably start by listing on a piece of paper, or with the help of your computer, the different elements you might use to search or describe the properties of your books, e.g. title, author, and page numbers. In addition, your organization wants to be part of the local network of agricultural libraries.

To be able to share your collection with others, without additional effort, you might decide to describe the books using the same elements: everybody will use: "title" to identify the title of the book, and "creator" to identify the author of the book.

Title = "The Euphrates pilot irrigation project, (Syrian Arab Republic). Management of workshops and parks of agricultural machinery and implements at Wadi-al-Fayd Area"
Creator = "Baille, A.; Marachy, M.A.; Kafi, M.W.A."

Similarly, in the context of the World Wide Web, where we are talking about millions of different pieces of different types of resources, it is essential to organize the information in order to identify easily what it is, how it is formatted, where to find it, etc.

What we want, in fact, is to make the information known and retrievable in a standardized format, in order to promote data sharing, and to allow for interoperability and integration.

The Solution - bringing order to information

People need to have enough information about what they are looking at in order to make an informed decision about its content. For example, imagine walking into a supermarket full of tin cans without any stickers on them explaining what is inside. We need some way to bring order to the vast amount of information around us. But the description must be made in a coherent and consistent manner.

What is metadata?

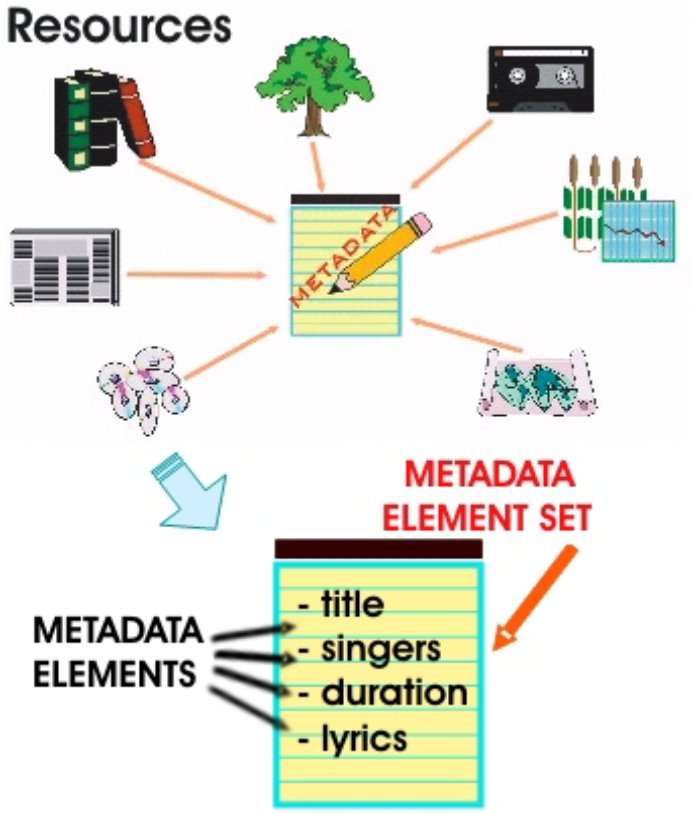
When you describe a given object (a book, a person, a product, etc.) with some information, you are actually using *metadata*: **any type of description of an object or resource** can be **considered metadata**. A set of elements used to describe an object is called the ***metadata element set***.

Here are some examples of metadata, or description of content about resources:

- authors, titles and publishers in a catalogue for books;
- names, addresses and telephone numbers on business cards for people;
- titles, singers, lyrics, duration of the songs for CDs; and
- ingredients, nutritional information and prices onpackages containing food products.

We need to clearly understand the difference between the information *used to describe* a resource, and the *information resource itself:* the information *about a publication* is the metadata and the *publication itself* is the object described. In addition, metadata can be organized in a standardized format in order to allow data sharing.

To facilitate sharing of information in the agricultural domain, FAO has developed a metadata standard called the Agricultural Metadata Element Set (AgMES).



Managing information at FAO

How can metadata help?

The use of metadata is essential for organizing and retrieving information, especially over the Web. For example, a search for documents about “cows” on Google gives more than 6 million results, containing disparate and not always pertinent information. If the same search is performed on a document repository containing metadata, the search will be more efficient, faster and more pertinent.

As the amount of information within organizations has started to grow, the use of metadata to organize and access information (e.g. Microsoft ‘properties’ for documents, Adobe ‘File info’ for images, etc.) is increasing.

Metadata applications in FAO

FAO's information systems use metadata to organize information.

A metadata creation tool

In order to produce metadata related to agriculture, FAO has developed a tool that creates **AgMES-compliant metadata** in different formats for Web pages and other resources with document-like properties.
It is available at: **http://www.fao.org/aims/**

ONTOLOGIES

Organizing information at FAO

The problem

A hypertext-based system originally created to facilitate the access and exchange of scientific data, the World Wide Web (WWW) has become a communication and information system for use by the general public. The exponential growth in available resources on the Web means that search facilities need to be made more efficient and accurate. We must succeed in extending the capability of computers to understand information better and serve up the best results to the users. But this capability of computers to process information on the Web is limited by:

ambiguity in the meaning of search strings: for example, when searching for 'rice' in Google, the user sees results where 'rice' is returned, i.a. as a surname, a university, a research institute, or a crop;
high recall, without logical order: for example, Google returns 13,900,00 results for 'rice' without organizing the results by type or category;
inability to understand the **user's intended meaning**;
no guarantee of the **trustworthiness of information** supplied; and
lack of assistance in the formulation of better queries.

The Semantic Web - giving meaning to information

The Web can only reach its full potential if it becomes a place resource where data can be shared and processed by computers as well as by people. Thus, the *Semantic Web* extends the WWW by giving meaning to information, allowing people and programmes to share and process data more efficiently.

Solutions and new approaches – the starting point of ontologies

Formalizing the semantics or meaning of data so that it is readable by computers improves not only the way in which information is organized and displayed but also how it is processed. Computers need to be provided with explicit contexts for terms, such as their attributes and their relations to surrounding ones. Making clear the properties and relations of terms provides a starting point for their conversion into an *ontology*.

In the agricultural sector there are many well-established and authoritative controlled vocabularies, such as AGROVOC (FAO's Multilingual Agricultural Thesaurus), the CAB Thesaurus, and NAL Thesaurus (the thesaurus of the National Agricultural Library in the United States). However, for these thesauri to be useable beyond their original scope there is a need to re-assess the traditional "thesaurus" approach and move towards modern technologies that are more suited to a Web environment.

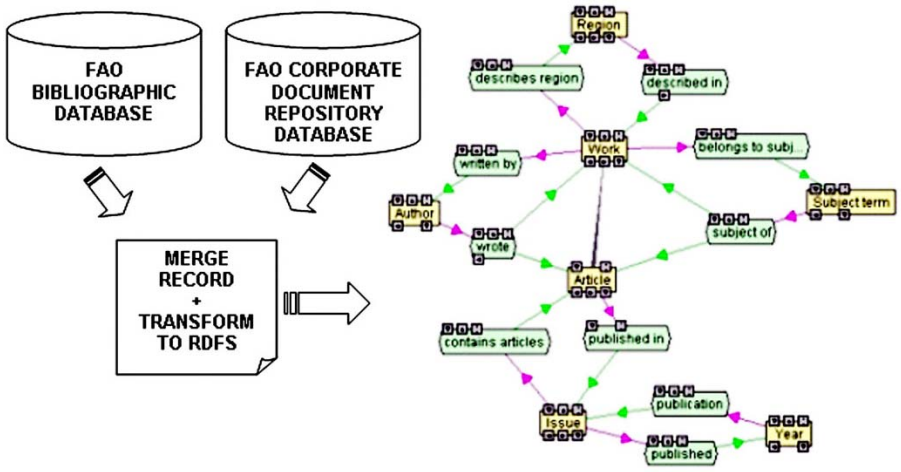
What is an ontology?

An *ontology* is a model of organized knowledge in a given domain (e.g. fisheries). Ontologies consist of components called “concepts, attributes, relations and instances”:
concepts or **classes** correspond to objects to be organized (e.g. projects, people, products, etc.);
attributes are the traits of those objects (e.g. titles, addresses, colour, etc.); and
relations connect two objects or an object and a property to each other (e.g. « Person » can be linked through the property « employer » to an « Organization »);
instances are the actual data in a given information system (e.g. “John Smith”, “Food and Agriculture Organization”).

Ontologies help to increase the efficiency and consistency of describing resources; in this way they allow for more sophisticated functionalities in knowledge management and information retrieval application development.

The use of standards, such as the Resource Description Framework (RDF) and OWL Web Ontology Language (OWL); provide structures for sharing common descriptions, definitions and relations within the agricultural community.

SCENARIO	Ontology-based navigation of bibliographic data sets
APPLICATION	Concept-aware browse capabilities when accessing the Food, Nutrition and Agriculture Journal
INTRODUCTION	An efficient, effective browsing system for the Food, Nutrition and Agriculture (FNA) journal was developed under the auspices of the FAO Food and Nutrition Department. The system uses a simple knowledge model to guide the user's search and browse experience. The portal allows users to browse by keywords, categories, and authors. Users can also traverse resources and properties through the ontological relationships that connect them. These steps are just a starting point for further exploitation of other semantic relationships
ARCHITECTURE	The metadata from two bibliographic databases were merged into a single XML file. This XML file was then converted into RDFS to allow the relationships between different metadata objects to be expressed. The KAON Tool suite for building and managing ontologies was used to access the concepts, relations, attributes, and lexicalizations in the ontology.



FEATURES

The website provides the following functionalities:

Easy navigation of the journal issues by following the semantic links;
Display of articles indexed with the same set of keywords;
Resolution of user's query terms to a controlled vocabulary;
Simple natural language processing as part of the understanding process of the user's query (e.g. distinguishing between the substantive and the unimportant terms);
Cross-linguistic information retrieval;
Display of semantically related concepts;
Guided query formulation using the relationships in the ontology; and
Inferencing, e.g. the user can find authors associated with specific keywords, or vice-versa, co-authors can be inferred knowing only the article name and one author.

http://www.fao.org/es/esn/publications/fna

(5) Events Modules

The events module is an integrated part of Web-Web-DIMS. The back end system of the events module enables system administrators to manipulate events by adding, editing, publishing or deleting them.

There are two types of users responsible for manipulating events: Data entry administrator & Institution Administrator.

1- Institution Data Entry

The Institution Data Entry is assigned for institution by Institution Administrator and is responsible to:

1. Add Events.
2. Edit/Delete Events that are added but not yet sent to Institution Administrator.
3. Send Event to Institute Administrator.

2- Institution Administrator

The Institution Administrator is assigned by National admin. He receives Events' records from Data Entry and is responsible to:

1. Publish Events.
2. Edit/ View/ Delete and Reject Events.

The following pages in this section will explain the details of each user's responsibilities.

5.1 Events Description & Data Entry

The Data Entry operator is assigned to an institution by Institution Admin. The following operations are carried by the Data Entry on Events Module.

1.1 Add New Event

Exercise 1.1

1. Login to back end interface by typing Data Entry **username** and **password** which was assigned to him by Institution Admin then click **login**
   The back end home page is displayed.

2. Click **Modules** link.
   The Modules main page is displayed).

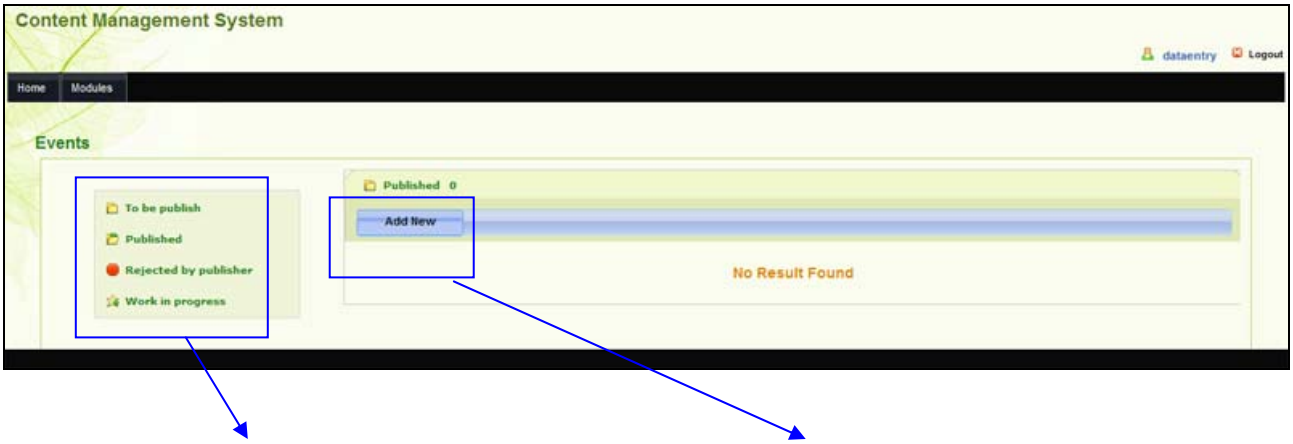
3. Click **Events** link in the Modules main page.
   The events main page is displayed).

4. Click the "**Add New**" link in the Events main page.
   *The **Add Events** page will be displayed.*

5. In the Add Event page Complete the data in the form then Click Save
   The Event record is added but not sent to the Institution admin.

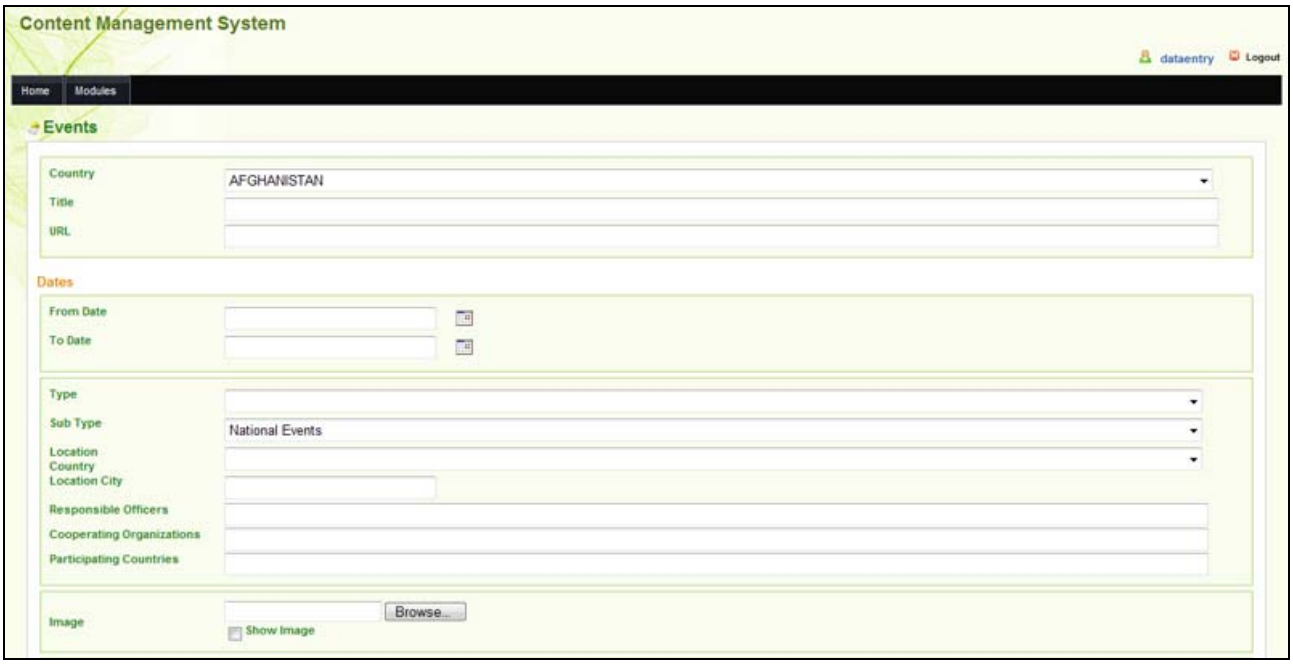
Note: To view the added Events, click **work in progress** from the left menu in the Events main page.

Events main page



To be published, published, rejected and work in progress Add new

Add – Edit Events form



1.2 View/Edit/Delete/send Event's Record

Exercise 1.2

1 Repeat steps 1 to 3 in exercise 1.1.

2 Click **work in progress** in the left menu.
All Events' records added but not sent to Institution admin will be displayed.

3 To view a record, select the Event record then click **View**.
The record details will be displayed.

4 To delete a record, select the Event record then click **Delete**.
The record will be deleted.

5 To update a record, select the Event record then click **Edit** then change the fields to be updated and click **Save.**
The record will be updated.

6 To send an Event record to Institution Admin for approval, select the record then click **Send**.
After sending the record to the institution Admin, data Entry has no right to edit or delete that record until returned to him by Institution Admin.

View/Edit/Delete/Send Event in work in progress state

Delete, Send, Add New **View, Edit**

1.3 Events' Records Status

The Events' records have progress stages; each stage has its own corresponding status. Each stage or status has its own system actor(s) who only has the privilege to manage the record. The back-end interface provides a view for each status.

The following table lists the "Event State", and the user who has the privilege to manipulate the record, and a brief description of the state.

State/ view	System Actor/ User	State Description
Work in Progress	Institute Data Entry	Draft records added and are not sent yet to Institution Admin for approval. (*The institute admin cannot view records in this state*).
To be Published	Institute Admin	Records sent by data entry to Institution admin but are not yet approved by him.
Published	Institute Admin	Records that are published by Institution Admin, and consequently appear on the front end.
Rejected (by Publisher)	Institute Data Entry	Records that are rejected by Institution Admin and so return back to Data Entry where he can edit, delete, resend to Institution Admin

Note:

The data entry operator can view Events' records in all the above four status views, while the institute admin can view three statuses only: "To be published, published, and rejected by publisher"

1.3.1 Displaying Events' Records Status for Data entry operator

Exercise 1.3.1

1 Repeat steps 1 to 3 in exercise 1.1.

2 To display records added but not yet sent to Institution Admin for publishing, click in the left menu **work in progress**.
All Events' records added but not yet sent for approval will be displayed.

3 To display records sent to Institution admin but not yet published, click **to be publish** in the left menu .
All Events' records sent to Institution admin but not yet published will be displayed.

4 To display records published by Institution Admin, click **Published** in the left menu.
All Published Events will be displayed.

5 To display records that are rejected by Institution Admin and return back to Data Entry to edit, delete or resend to Institution Admin, click **Rejected by publisher** in the left menu.
All rejected Events' records will be displayed.

5.2 Events Reviewing and publish (For Institution Admin)

The Institution Administrator receives Events' records from Data Entry and can manipulate them in different ways. The following exercises will explain in details the institute administrator's responsibilities for records.

2.1 Publish Event

Exercise 2.1

1 Login to back end interface by typing Institution Admin **username** and **password** then click **login**.
The back end home page is displayed).

2 Click **Modules** link.
The Modules main page is displayed.

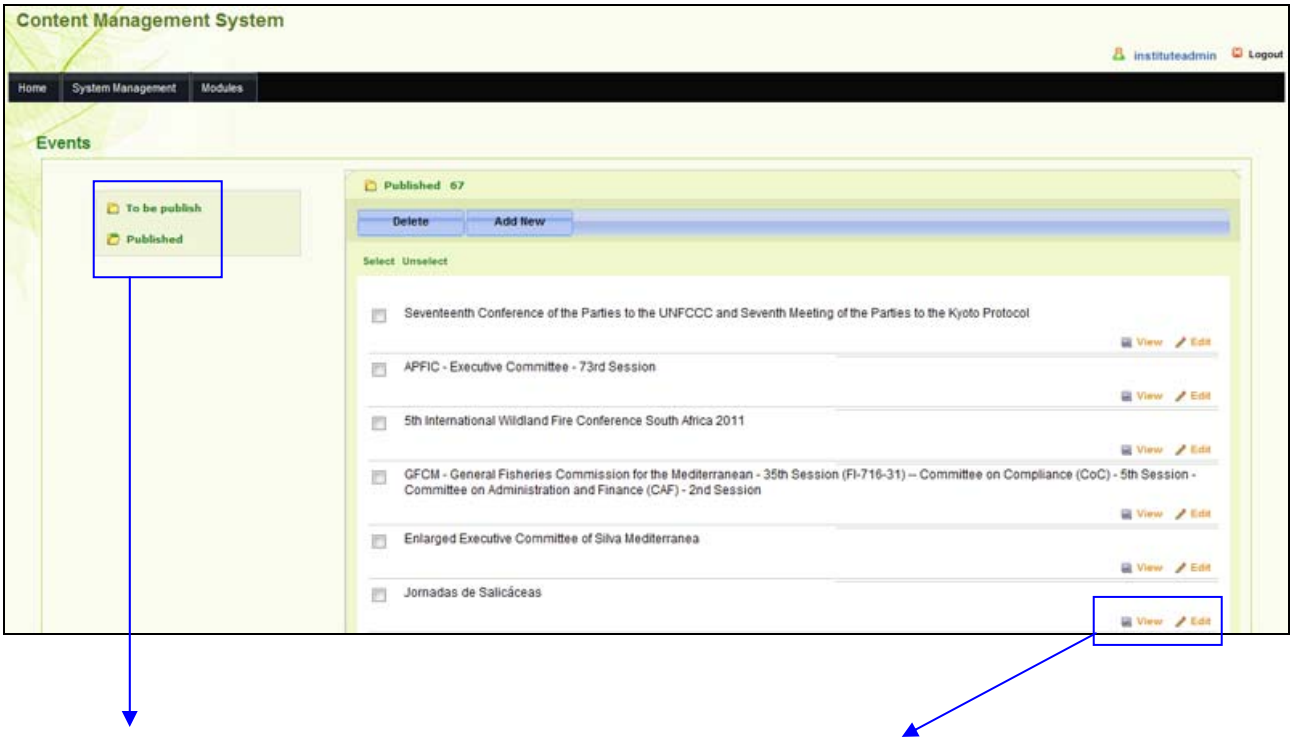
3 Click **Events** link in the Modules main page.
The Events main page is displayed.

4 The Institution Admin can click on **to be published**.
Display all events sent by Data Entry and need to be published on the front end.

5 The Institution Admin can select the record then click on **view** to revise the record details.

6 If the record accepted by the Institution Admin, Click **publish**.
The record will be published on the front end interface.

Institue Admin Events' page


Content Management System
instituteadmin
Logout
Home
System Management
Modules
Events
To be publish
Published
Published 67
Delete
Add New
Select Unselect
Seventeenth Conference of the Parties to the UNFCCC and Seventh Meeting of the Parties to the Kyoto Protocol
APFIC - Executive Committee - 73rd Session
5th International Wildland Fire Conference South Africa 2011
GFCM - General Fisheries Commission for the Mediterranean - 35th Session (FI-716-31) – Committee on Compliance (CoC) - 5th Session - Committee on Administration and Finance (CAF) - 2nd Session
Enlarged Executive Committee of Silva Mediterranea
Jornadas de Salicáceas
View
Edit

To be publish, published **view, edit**

To be published

Delete, Publish, Reject, Add New **View, Edit**

2.2 Edit Events' records

Exercise 2.2

1 Repeat steps 1 to 3 in exercise 2.1.

2 To edit a record, select an Event then click **Edit**.
The Edit events information page is displayed.

3 Clicks **Submit** after editing the record.
The record information is updated.

2.3 Delete Events' records

Exercise 2.3

1 Repeat steps 1 to 3 in exercise 2.1.

2 To delete a record, select the record then click **Delete**.
The Record will be deleted.

2.4 Reject Events' records

Exercise 2.4

1 Repeat steps 1 to 3 in exercise 2.1.

2 To reject a record, select the record then click **Reject**.
The Record returns back to Data Entry for editing, and can be viewed in "Rejected" view.

2.5 Displaying Events' Records Status for Institute Admin

The Institution Admin can display Events' records in different stages as

1- **To be published:** are records sent to Institution admin but not yet published by him.

2- **Published:** Records that are approved by Institution Admin and so published.

Exercise 2.5

1 Repeat steps 1 to 3 in exercise 2.1.

2 To view published Events' records, click **published** from the left menu.
All published events are displayed where Institution admin can View.

3 To view Events' records need to be published by Institution Admin, click **to be published** from the left menu.
All records need to be published by Institution Admin are displayed

Note: Institution admin has authority to add directly an event to the front end.

(6) News Module

The news module is an integrated part of WEB-DIMS. The back end system of the news module enables system actors to manipulate news by adding, editing, publishing or deleting them. There are two types of users responsible for manipulating events: Data entry operator & Institution Admin.

1- Institution Data Entry

The Institution Data Entry is assigned for institution by Institution Administrator and is responsible to:

1. Add News.
2. Edit/Delete News that are added but not yet sent to Institution Administrator
3. Send News to Institute Administrator.

2- Institution Administrator

The Institution Administrator is assigned by National admin. He receives News' records from Data Entry and is responsible to publish/ Edit/ View/ Delete/ Reject News.

6.1 News Description & Data Entry

The Data Entry operator is assigned to an institution by National Admin. The following exercises explain the operations which allow this type of user to manage News.

1.1 Add New News

Exercise 1.1

4. Login to back end interface by typing Data Entry **username** and **password** which was assigned to him by Institution Admin then click **login** .
   The back end home page is displayed).

5. Click **Modules** link.
   The Modules main page is displayed).

6. Click **News** link in the Modules main page.
   The events main page is displayed).

7. Click **Add New** link in the News main page.
   The Add news page will be displayed.

8. Complete the data in the form.

9. Click **Submit**
   The News record is added but not sent to the Institution admin.
   *To view the added News, click **work in progress** from left menu in the event main page .*

News main page

To be published, published
Rejected by Publisher, work in Progress

Add New

Add / Edit News Form

1.2 Edit/Delete/send News Record

Exercise 1.2

1 Repeat steps 1 to 3 in exercise 1.1.

2 Click **work in progress** in the left menu.
All News' records added but not sent to Institution admin will be displayed.

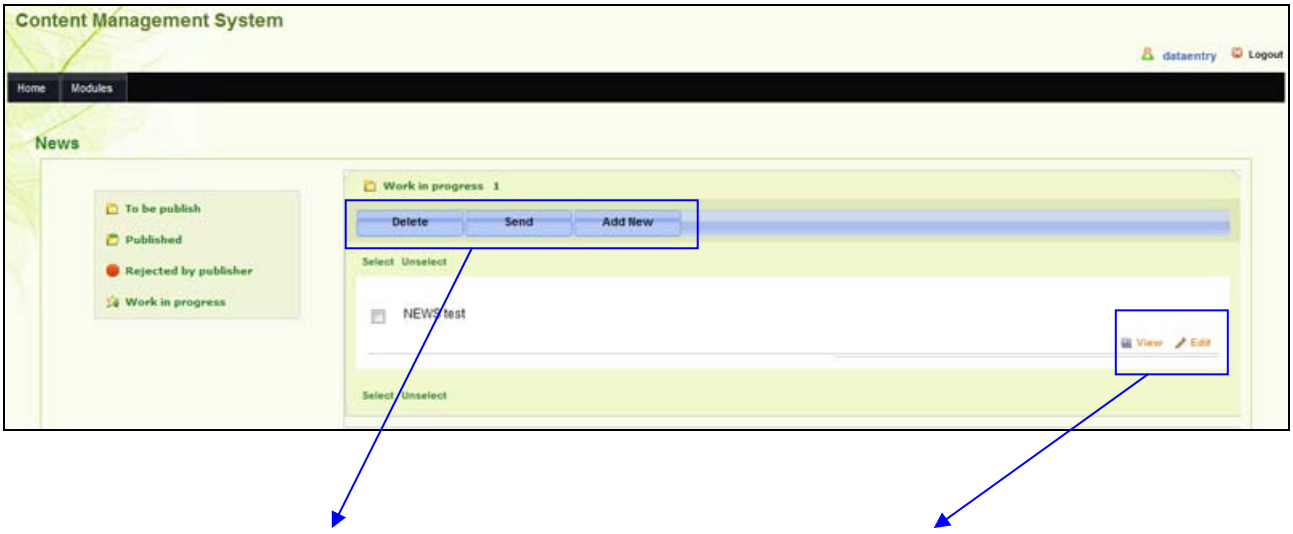
3 To delete a record, select the News' record then click **Delete**.
The record will be deleted.

4 To update a record, select the record then click **Edit** then change the fields to be updated and click **Submit.**
The record will be updated.

5 To send a publication record to Institution Admin for approval, select the record then click **Send**.
After sending the record to the institution Admin, data Entry has no right to edit or delete that record until returned to him by Institution Admin.

6 To View a record, select the record then click **View**.

Work in Progress



Delete, send, Add New **View, Edit**

1.3 News' Records Status

The news' records have progress stages; each stage has its own corresponding status. Each stage or status has its own system actor(s) who only has the privilege to manage the record. The back-end interface provides a view for each status.

The following table lists the "News State", and the user who has the privilege to manipulate the record, and a brief description of the state.

State/ view	System Actor/ User	State Description
Work in Progress	Institute Data Entry	Draft records added and are not sent yet to Institution Admin for approval. (*The institute admin cann**ot** view records in this state*)
To be Published	Institute Admin	Records sent by data entry to Institution admin but are not yet approved by him.
Published	Institute Admin	Records that are published by Institution Admin, and consequently appear on the front end
Rejected (by Publisher)	Institute Data Entry	Records that are rejected by Institution Admin and so return back to Data Entry where he can edit, Delete, resend to Institution Admin

Note:

The data entry operator can view News' records in all the above four status views, while the institute admin can view three statuses only: "To be published, published, and rejected by publisher".

1.3.1 Displaying News' Records Status for Data entry operator

Exercise 1.3.1

1 Repeat steps 1 to 3 in exercise 1.1.

2 To display records added but not yet sent to Institution Admin for publishing, click in the left menu **work in progress**.
All News' records added but not yet sent for approval will be displayed.

3 To display records sent to Institution admin but not yet published, click **to be publish** in the left menu.
All News' records sent to Institution admin but not yet published will be displayed.

4 To display records published by Institution Admin, click **Published** in the left menu.
All Published News will be displayed.

5 To display records that are rejected by Institution Admin and return back to Data Entry to edit, delete or resend to Institution Admin, click **Rejected by publisher** in the left menu.
All rejected News' records will be displayed.

6.2 News Reviewing and publish (For Institution Admin)

The Institution Administrator can start acting on News' records after receiving it from Data Entry operator; the following exercises explain the operations which allow this type of user to manage events.

2.1 Publish News

Exercise 2.1

1 Login to back end interface by typing Institution Admin **username** and **password** then click **login**.
The back end home page is displayed).

2 Click **Modules** link.
The Modules main page is displayed.

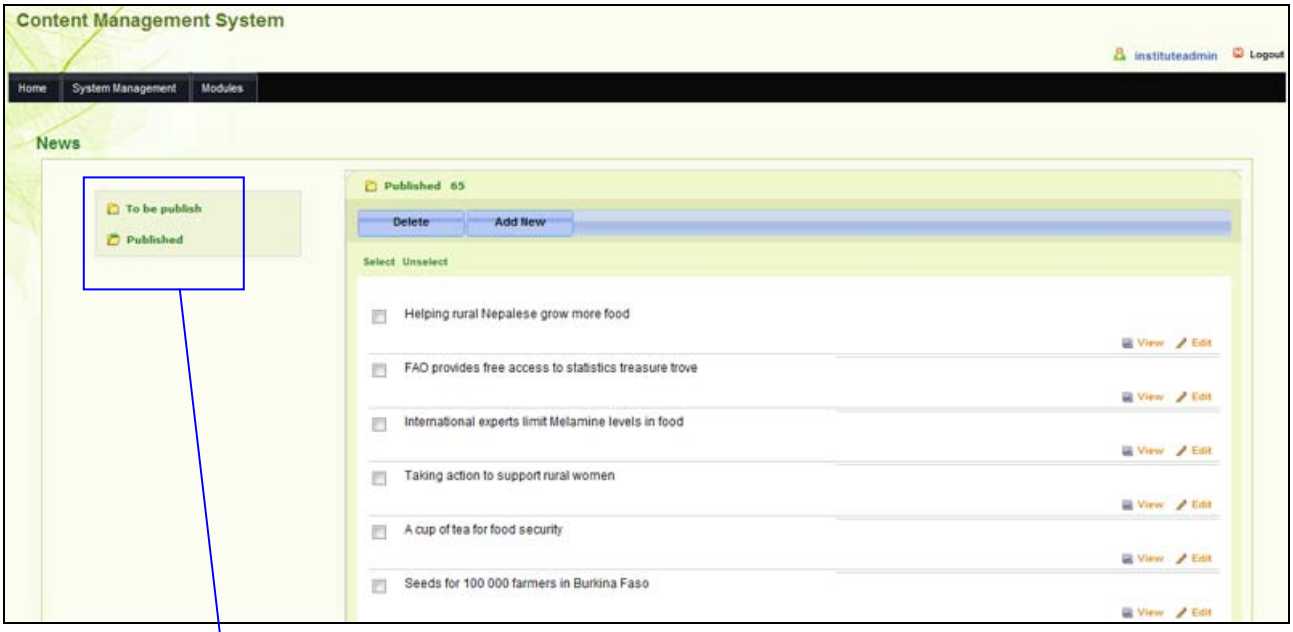
3 Click **News** link in the Modules main page.
The News main page is displayed.

5 The Institution Admin can click on **to be published**.
Display all News sent by Data Entry and need to be published on the front end.

7 The Institution Admin can click on **view** to revise the record details.

8 If the record accepted by the Institution Admin, Click **publish**.
The record will be published on the front end interface.

News main page



To be published, published

2.2 Edit News' records

Exercise 2.2

1 Repeat steps 1 to 3 in exercise 2.1.

2 To edit News' record, select a record then click **Edit**.
The Edit News information page is displayed.

3 Clicks **Submit** after editing the record.
The record information is updated.

2.3 Delete Events' records

Exercise 2.3

1 Repeat steps 1 to 3 in exercise 2.1.

2 To delete News' record, select the record then click **Delete**.
The Record will be deleted.

2.4 Reject Events' records

Exercise 2.4

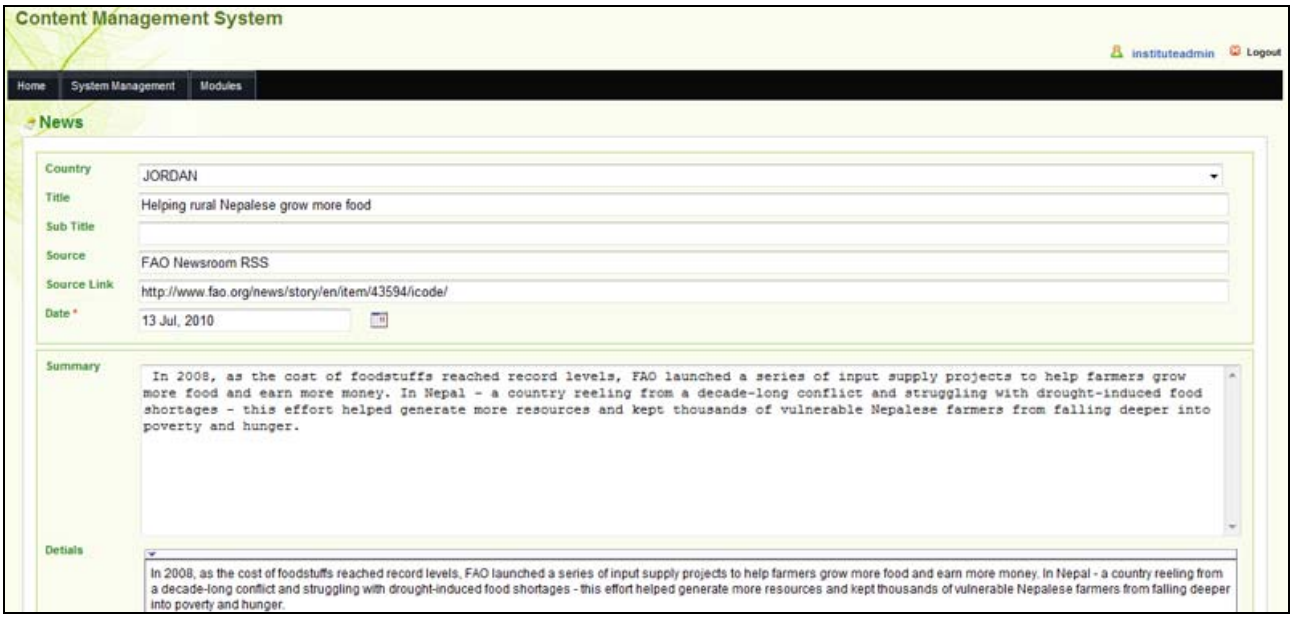
1 Repeat steps 1 to 3 in exercise 2.1.

2 To reject a record, select the record then click **Reject**.
The Record returns back to Data Entry for editing, and can be viewed in "Rejected" view

To Be Published

Delete, publish, reject, Add new view, Edit

Edit News


Content Management System
instituteadmin
Logout
Home
System Management
Modules
News
Country
JORDAN
Title
Helping rural Nepalese grow more food
Sub Title
Source
FAO Newsroom RSS
Source Link
http://www.fao.org/news/story/en/item/43594/icode/
Date *
13 Jul, 2010
Summary
In 2008, as the cost of foodstuffs reached record levels, FAO launched a series of input supply projects to help farmers grow more food and earn more money. In Nepal - a country reeling from a decade-long conflict and struggling with drought-induced food shortages - this effort helped generate more resources and kept thousands of vulnerable Nepalese farmers from falling deeper into poverty and hunger.
Details
In 2008, as the cost of foodstuffs reached record levels, FAO launched a series of input supply projects to help farmers grow more food and earn more money. In Nepal - a country reeling from a decade-long conflict and struggling with drought-induced food shortages - this effort helped generate more resources and kept thousands of vulnerable Nepalese farmers from falling deeper into poverty and hunger.

2.5 Displaying News' Records Status for Institute Admin

Exercise 2.5

1 Repeat steps 1 to 3 in exercise 2.1.

2 To view published News' records, click **published** from the left menu.
All published News is displayed where Institution admin can View.

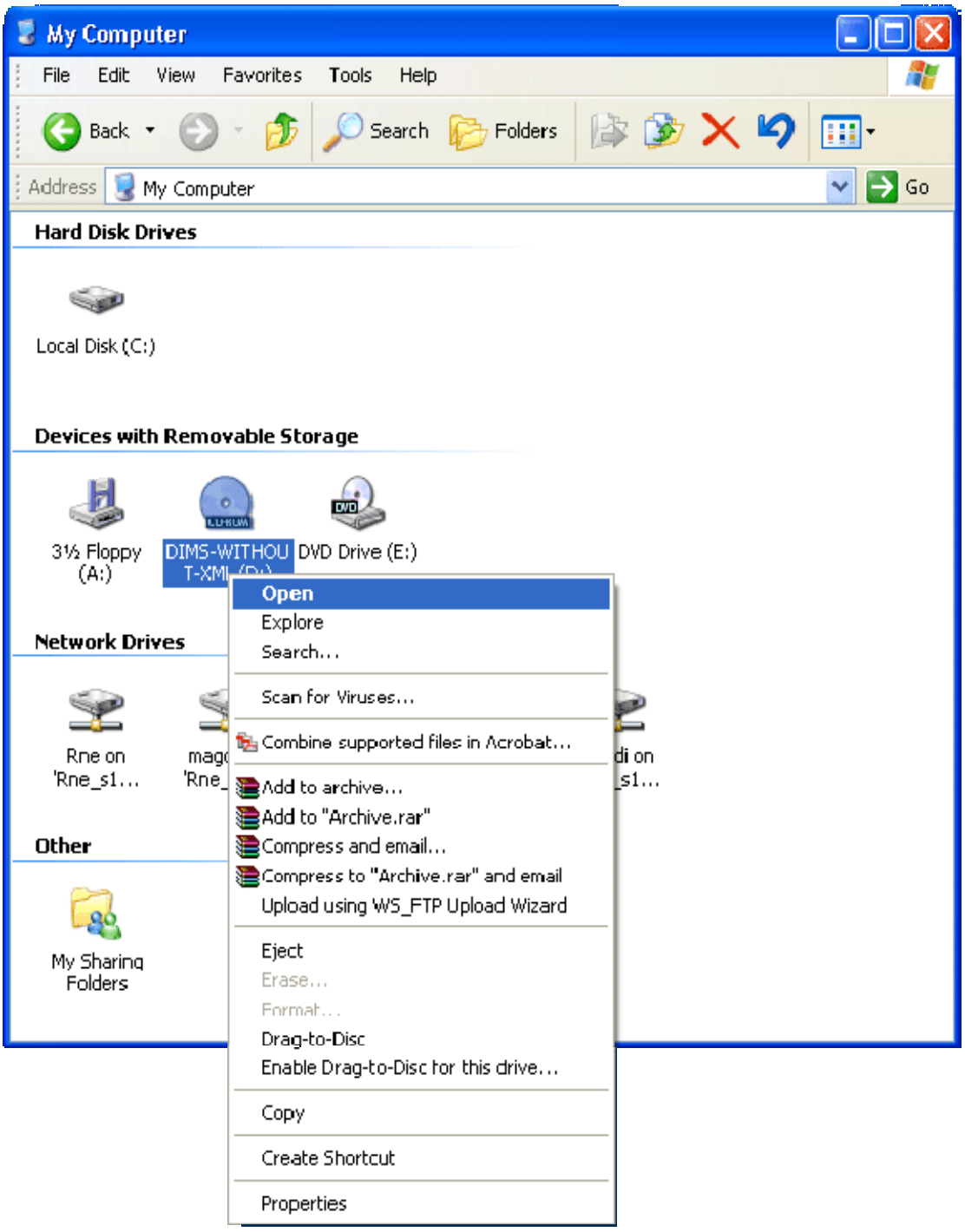
3 To view News' records need to be published by Institution Admin, click **to be published** from the left menu.
All records need to be published by Institution Admin are displayed

Note: Institution admin has authority to add directly News to the front end.

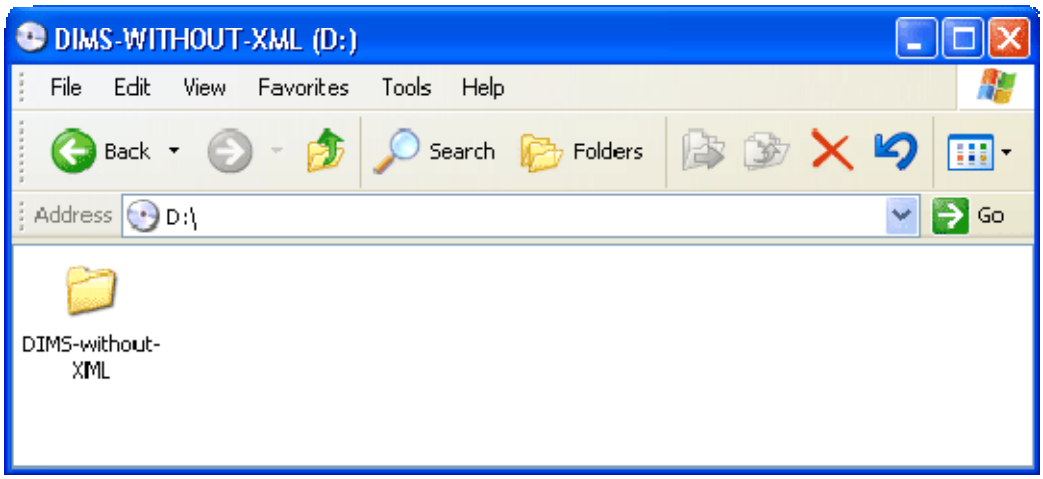
(7) Operation Guidelines

7.1 The Operation Guidelines of Web-DIMS Application from the CD

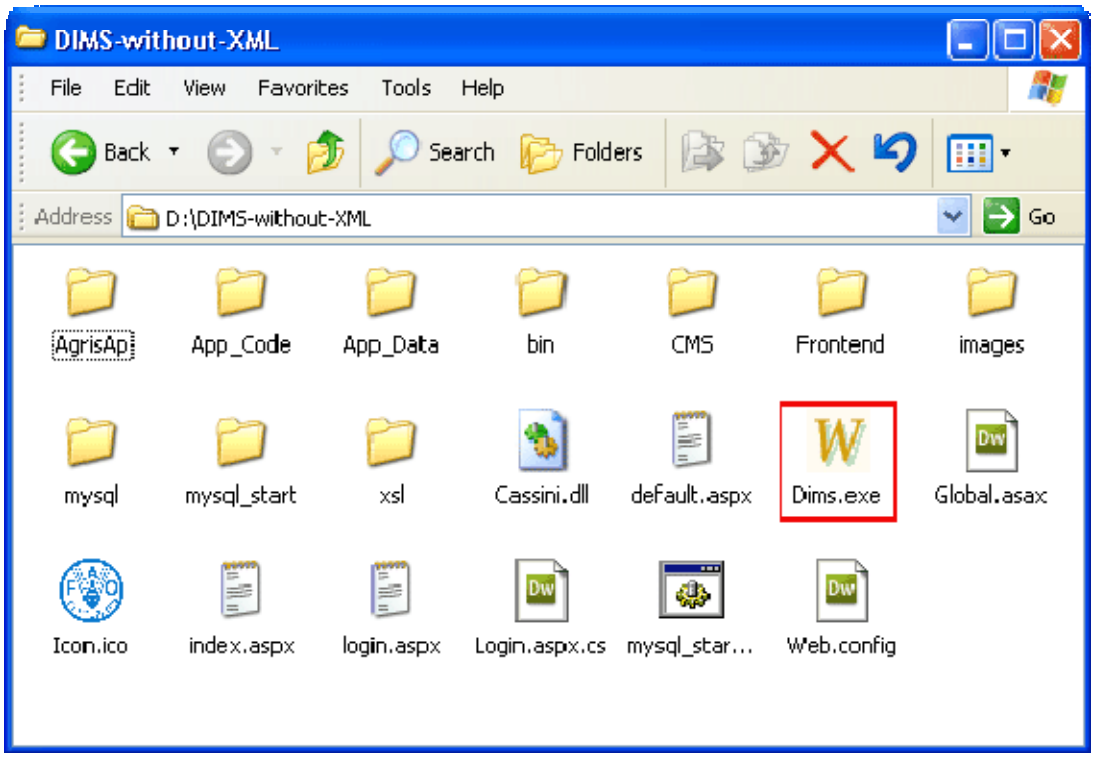
1- Enter the CD in the drive. from “My Computer” open the CD-ROM



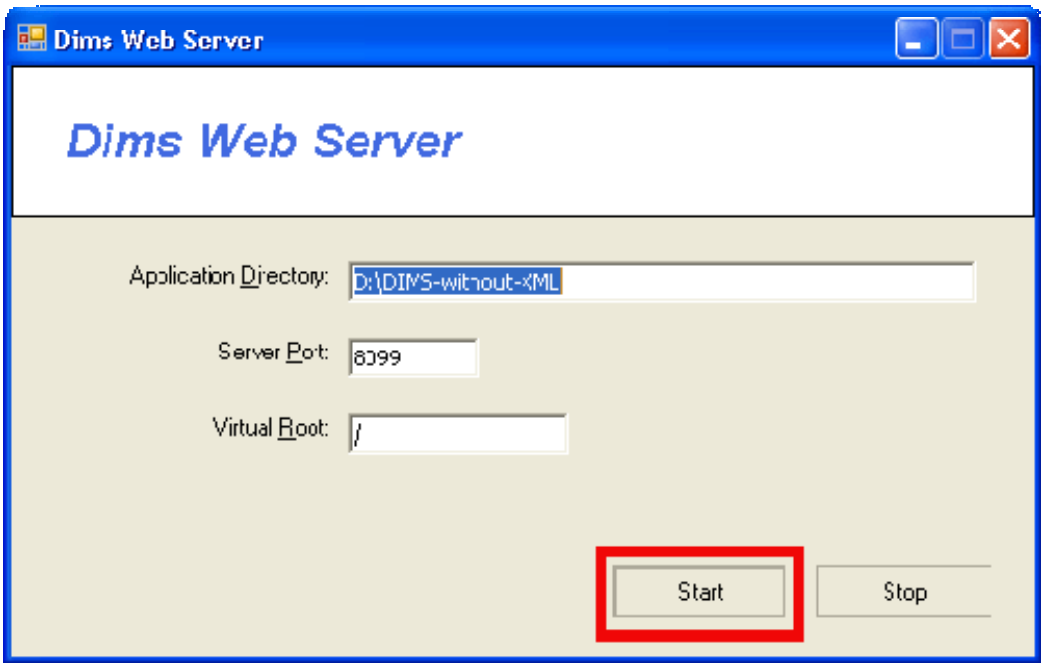
2- Open the folder “DIMS-without-XML”



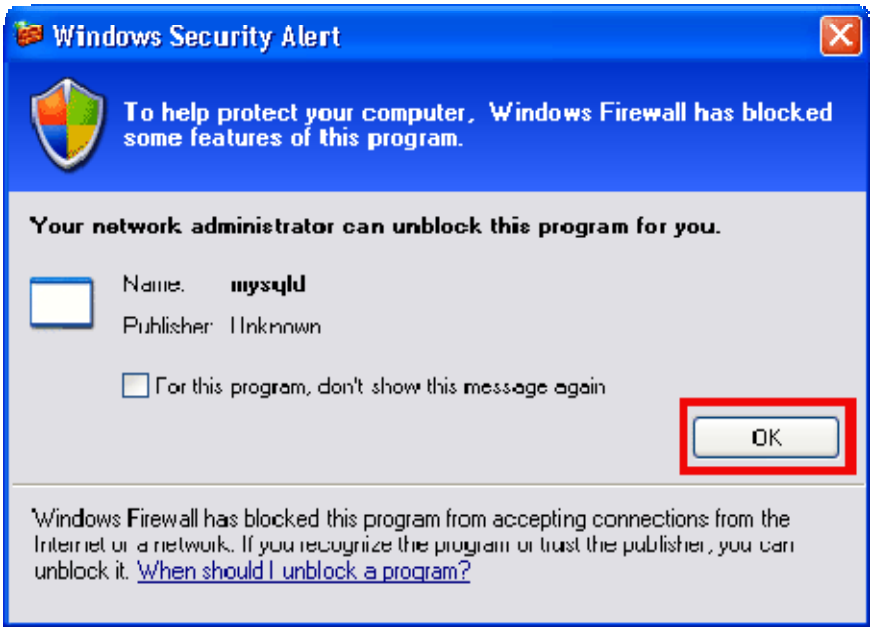
3- Double click “Dims.exe”



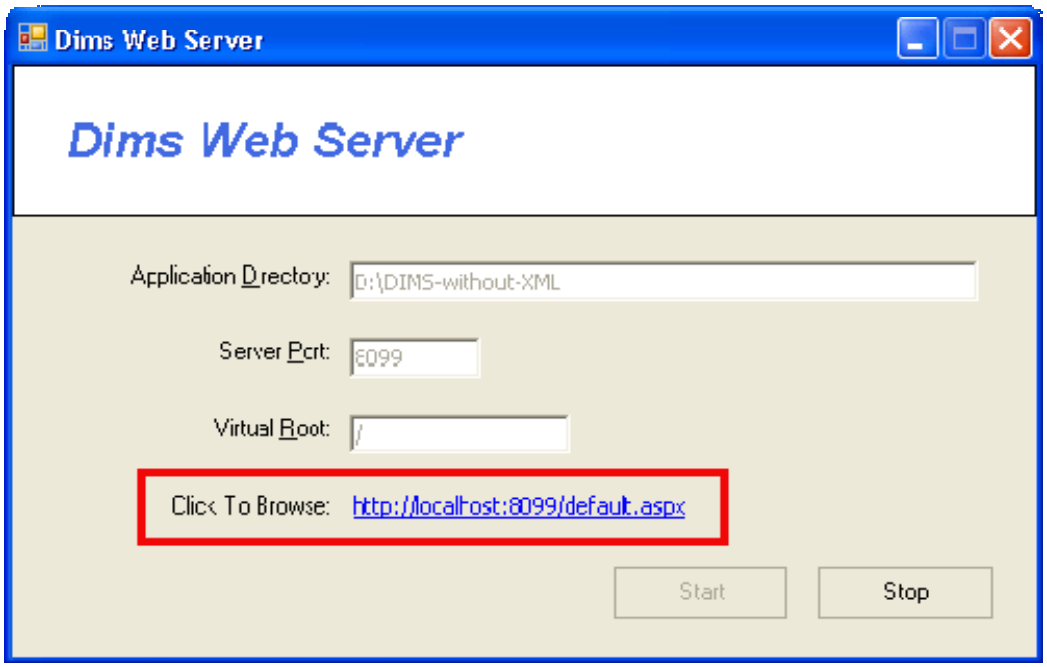
4- On the Dims Web Server page Click Start.



5- If prompted to unblock the mysqld application Click UNBLOCK or OK.

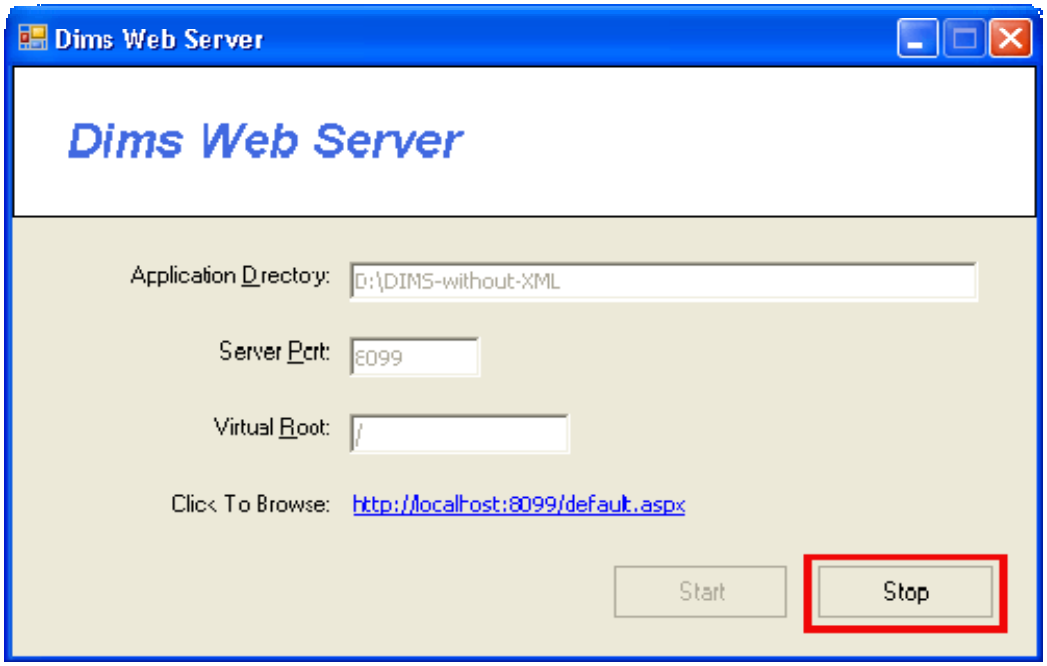

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Your network administrator can unblock this program for you.
Name: mysqld
Publisher: Unknown
For this program, don't show this message again
OK
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

6- Click to browse: http://localhost:8099/default.aspx



7- Now Browse WEB-DIMS

8- Special Note: DIMS Web Server dialogue box should be Kept ON Without clicking Stop Button, as long as the user is working on DIMS Application.
9- Click Stop to terminate the operation and working session at any time

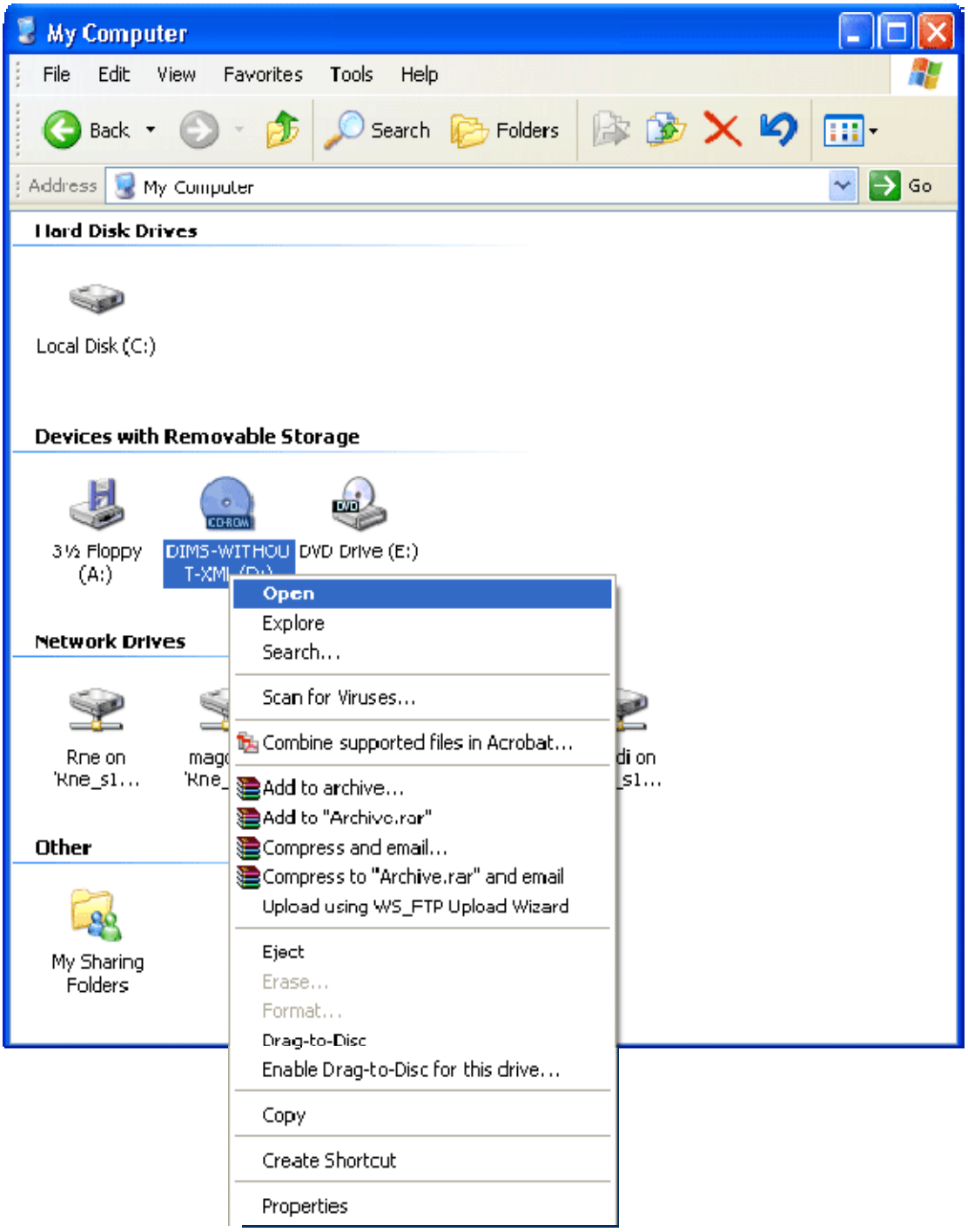


Notes:

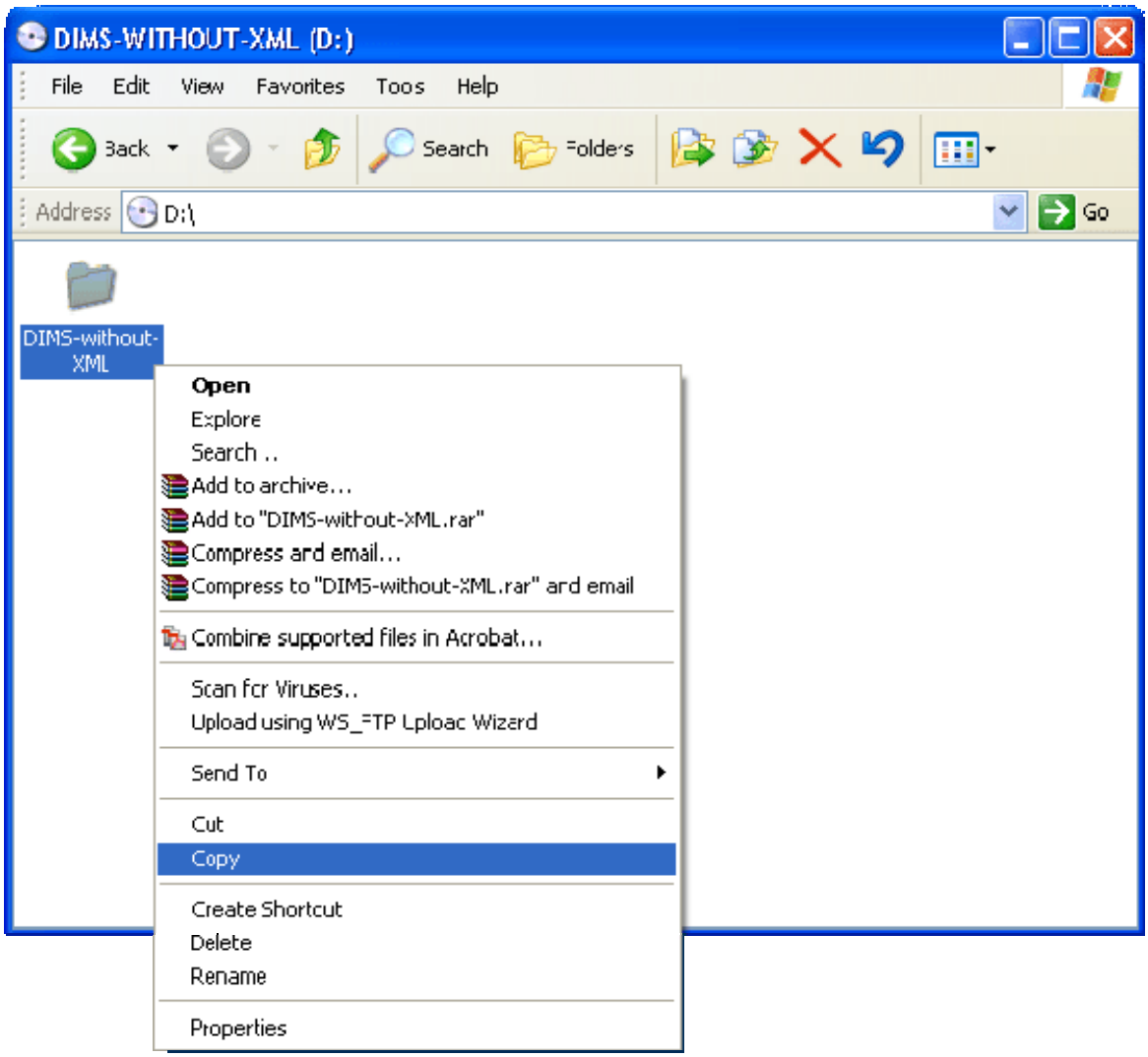
1. DIMS Application is working on All Windows Platforms.
2. Work on Operation and Installation of DIMS Application under Linux-Apache Web Server Environment is in progress and will be available in Version 2.0.

7.2 The Operation Guidelines of Web-DIMS Application from the Hard Disk

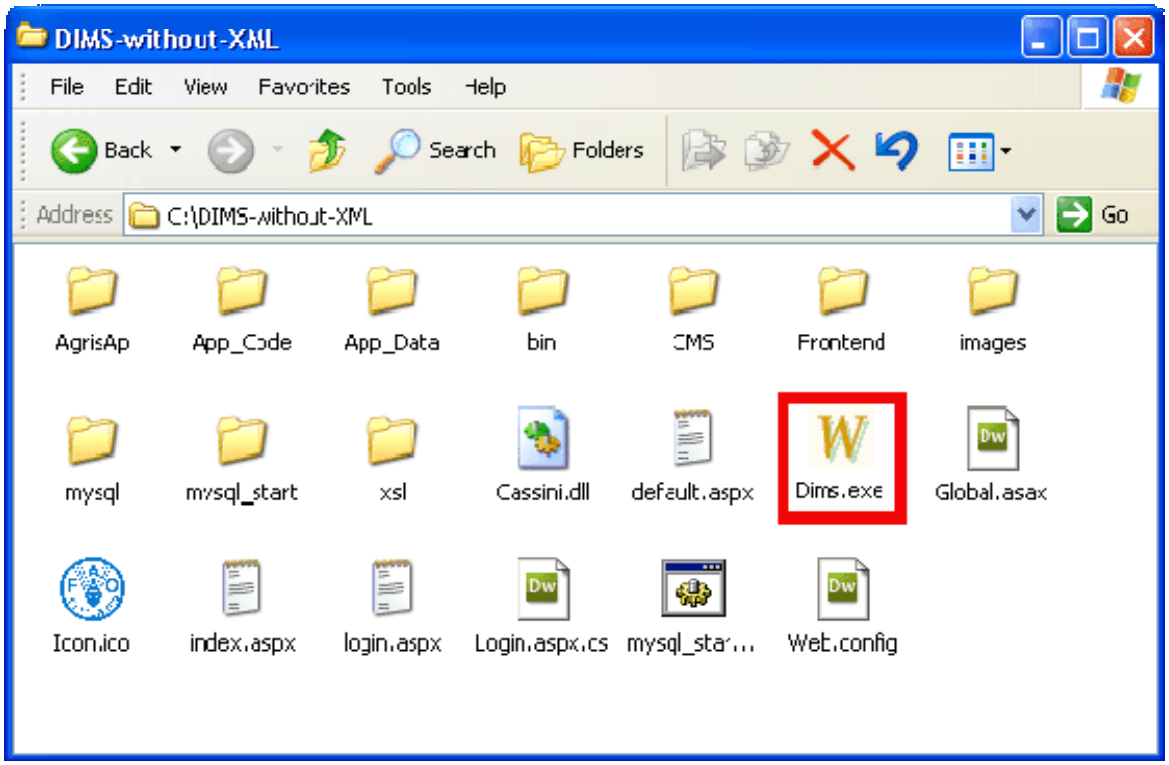
1- Enter the CD in the drive. from “My Computer” open the CD-ROM



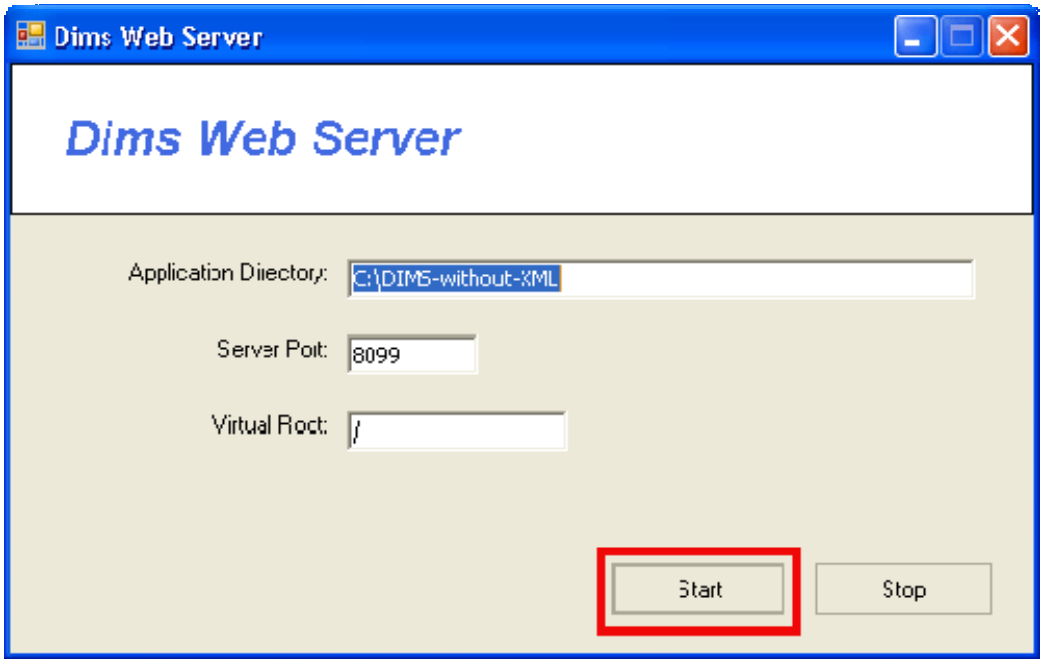
2- Copy the folder “DIMS-without-XML” to Drive C:\ for example



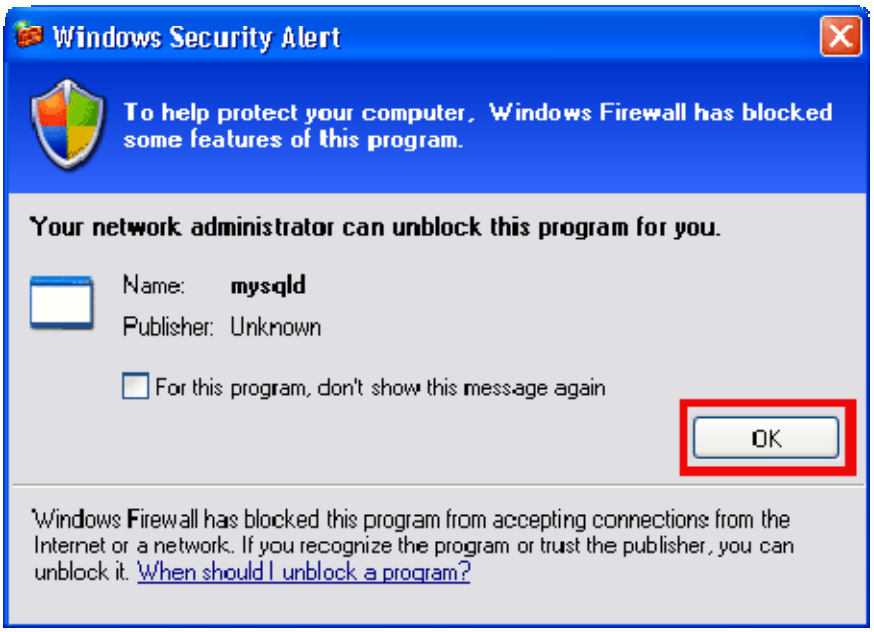
3- Double click “Dims.exe”



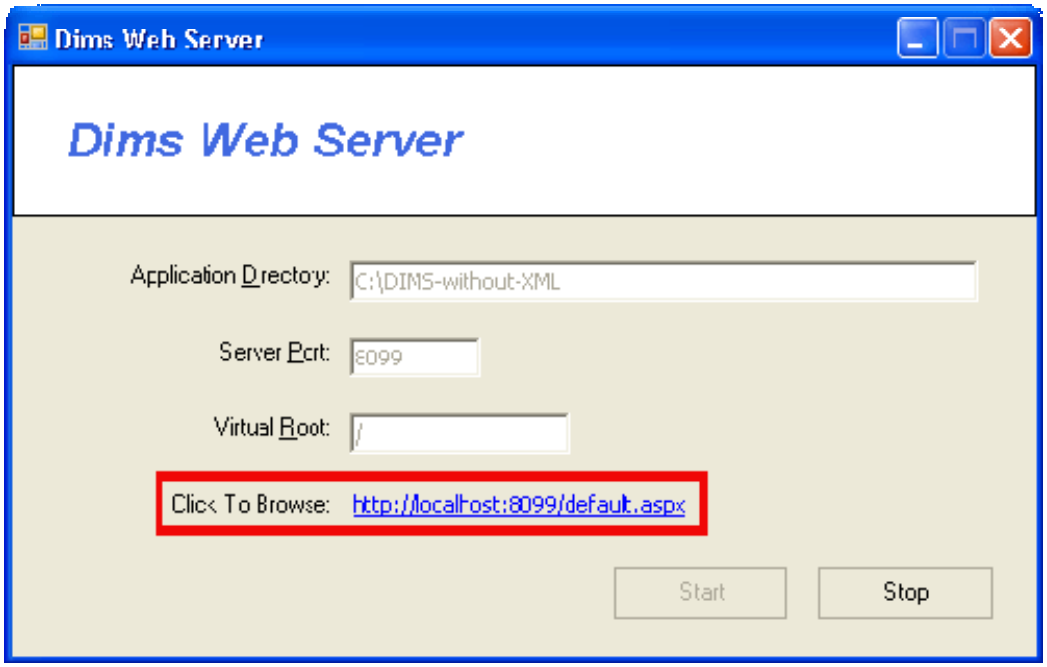
4- On the Dims Web Server page Click Start.



5- If prompted to unblock the mysqld application Click UNBLOCK or OK.


Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Your network administrator can unblock this program for you.
Name: mysqld
Publisher: Unknown
For this program, don't show this message again
OK
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

6- Click to browse: http://localhost:8099/default.aspx

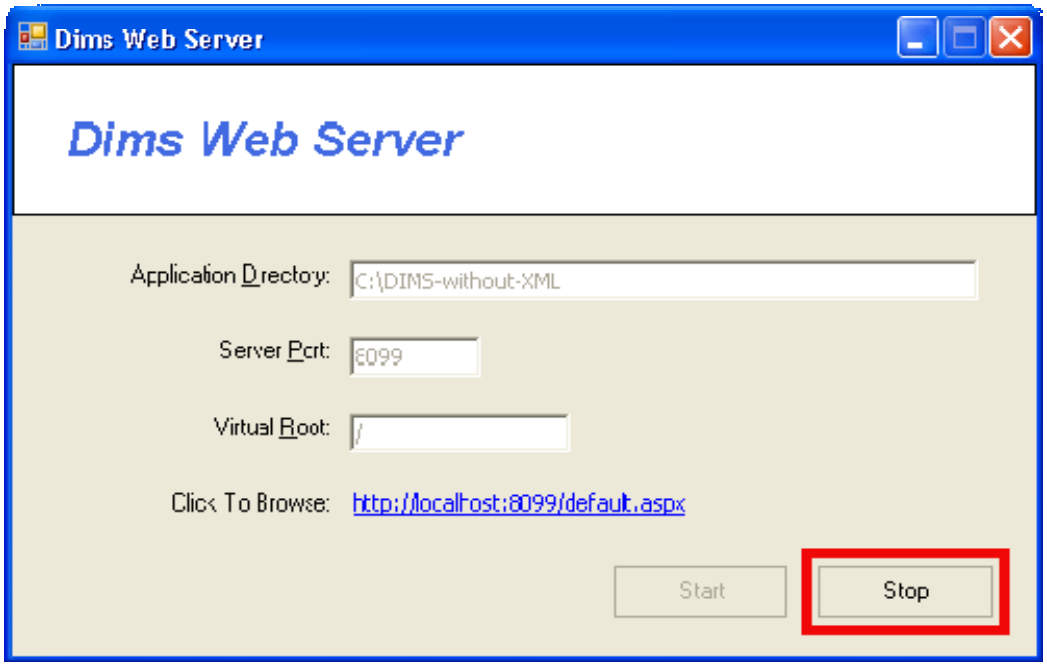


7- Now Browse WEB-DIMS

Home | About | Advanced Search | Subjects | Types | News | Events | Contact Us
WEB DIMS
Institution Repository
Document Information Management System
Search
Follow Us On

8- Special Note: DIMS Web Server dialogue box should be Kept ON Without clicking Stop Button, as long as the user is working on DIMS Application.

9- Click Stop to terminate the operation and working session at any time

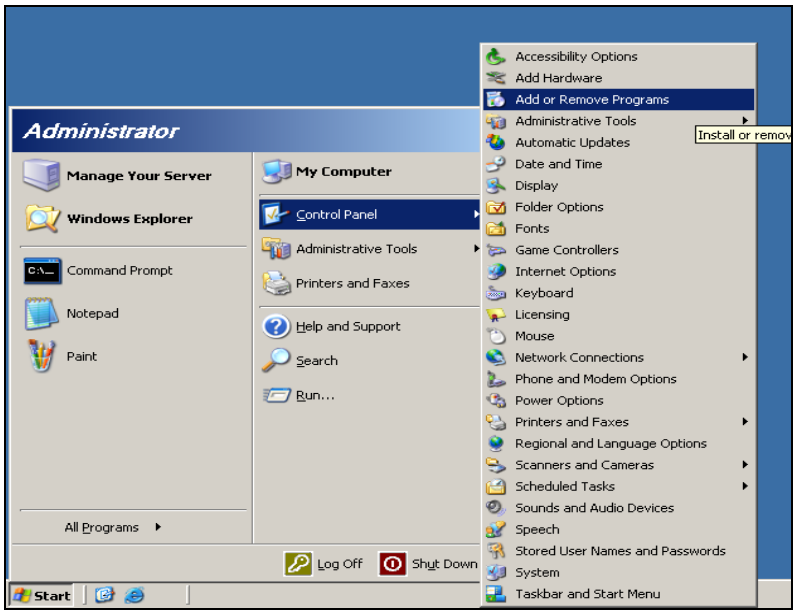


Notes:

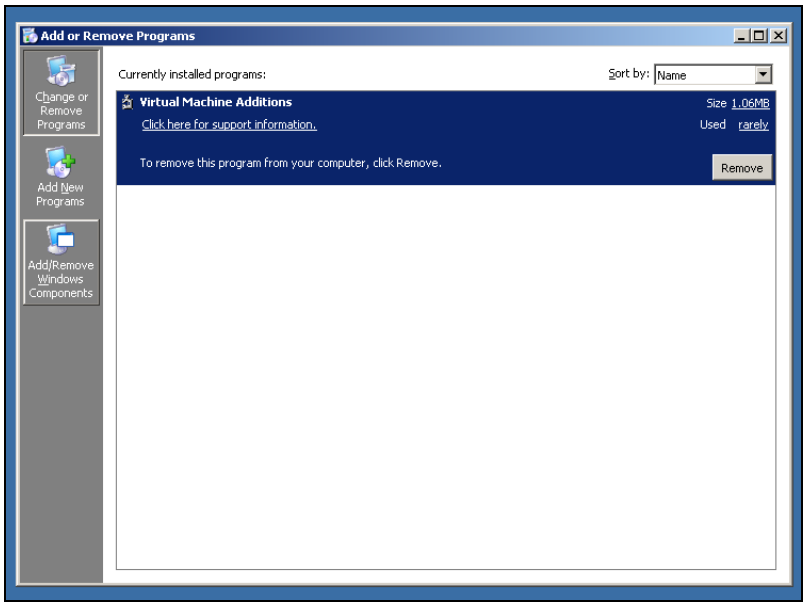
1. DIMS Application is working on All Windows Platforms.
2. Work on Operation and Installation of DIMS Application under Linux-Apache Web Server Environment is in progress and will be available in Version 2.0.

7.3 The Installation and Operation Guidelines of Web-DIMS Server Setup

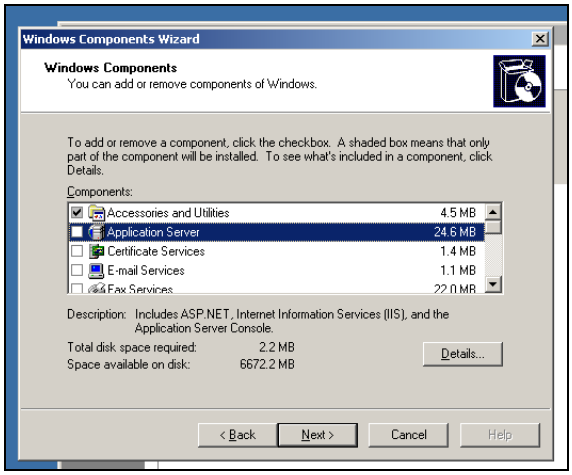
1- WEB-DIMS Application is working on All Windows Platforms (Windows Server 2000, Windows Server 2003, and Windows Server 2008).
2- Work on operation and installation of WEB-DIMS Application UNDER Linux-Apache Web Server Environment is in progress and will be available in Version 2.0.
3- The following installation is for Windows Server 2003 as an example.
4- **Install Windows Server 2003**
5- **Install IIS as follows**
    a. Open Start > Control Panel > Add or Remove Program



b. Click on Add/Remove Windows Components

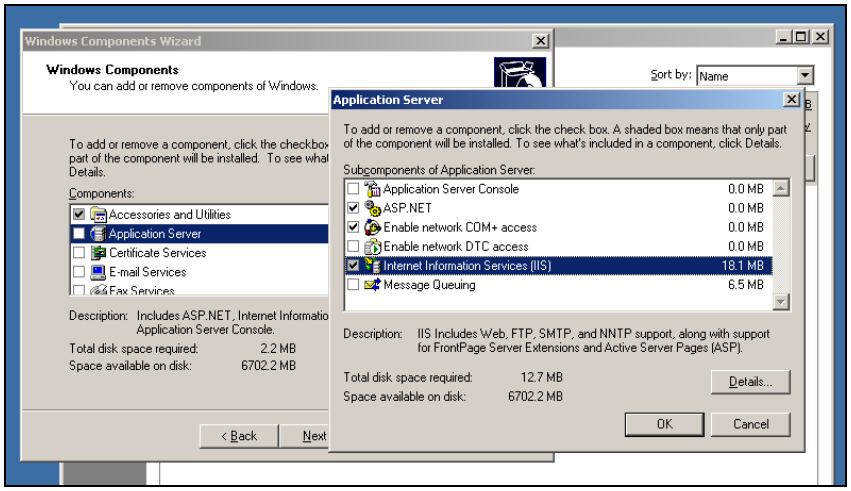


c. Click on Application server


Windows Components Wizard
Windows Components
You can add or remove components of Windows.
To add or remove a component, click the checkbox. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.
Components:
Accessories and Utilities 4.5 MB
Application Server 24.6 MB
Certificate Services 1.4 MB
E-mail Services 1.1 MB
Fax Services 22.0 MB
Description: Includes ASP.NET, Internet Information Services (IIS), and the Application Server Console.
Total disk space required: 2.2 MB
Space available on disk: 6672.2 MB
Details...
< Back
Next >
Cancel
Help

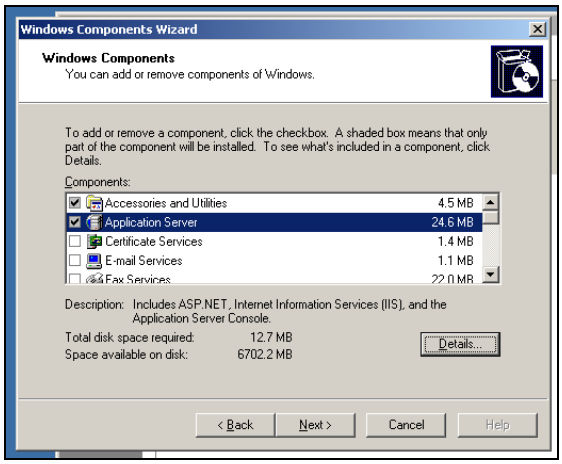
d. Click on Details

Select ASP .NET and Internet Information Server (IIS)


Windows Components Wizard
Windows Components
You can add or remove components of Windows.
To add or remove a component, click the checkbox
part of the component will be installed. To see what
Details.
Components:
Accessories and Utilities
Application Server
Certificate Services
E-mail Services
Fax Services
Description: Includes ASP.NET, Internet Informatio
Application Server Console.
Total disk space required: 2.2 MB
Space available on disk: 6702.2 MB
< Back
Next
Sort by: Name
Application Server
To add or remove a component, click the check box. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.
Subcomponents of Application Server:
Application Server Console 0.0 MB
ASP.NET 0.0 MB
Enable network COM+ access 0.0 MB
Enable network DTC access 0.0 MB
Internet Information Services (IIS) 18.1 MB
Message Queuing 6.5 MB
Description: IIS Includes Web, FTP, SMTP, and NNTP support, along with support for FrontPage Server Extensions and Active Server Pages (ASP).
Total disk space required: 12.7 MB
Space available on disk: 6702.2 MB
Details...
OK
Cancel

e. Click OK

f. Click Next


Windows Components Wizard
Windows Components
You can add or remove components of Windows.
To add or remove a component, click the checkbox. A shaded box means that only part of the component will be installed. To see what's included in a component, click Details.
Components:
Accessories and Utilities 4.5 MB
Application Server 24.6 MB
Certificate Services 1.4 MB
E-mail Services 1.1 MB
Fax Services 22.0 MB
Description: Includes ASP.NET, Internet Information Services (IIS), and the Application Server Console.
Total disk space required: 12.7 MB
Space available on disk: 6702.2 MB
Details...
< Back
Next >
Cancel
Help

g. If prompted for the CD source for Server 2003 Insert Media in drive.

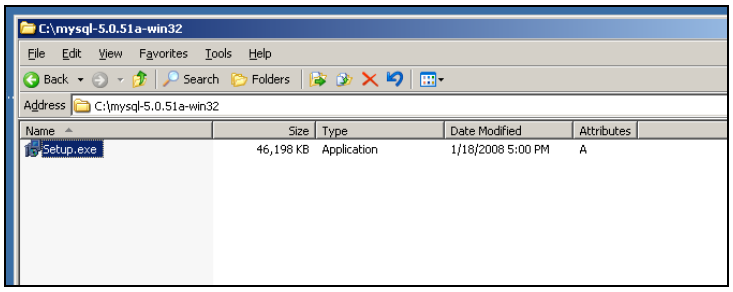
h. Click Finish

6. Restart server.

7. Install MySQL 5.0.51a as follows

a. Copy the folder “mysql-5.0.51a-win32” from the CD-ROM to C:\

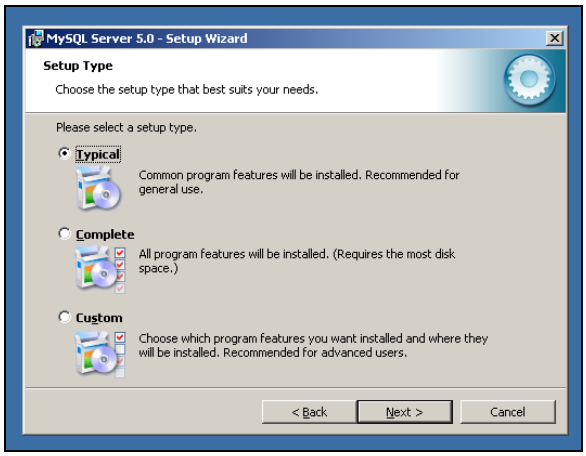
b. Run setup.exe from the folder


C:\mysql-5.0.51a-win32
File Edit View Favorites Tools Help
Back Search Folders
Address C:\mysql-5.0.51a-win32
Name Size Type Date Modified Attributes
Setup.exe 46,198 KB Application 1/18/2008 5:00 PM A

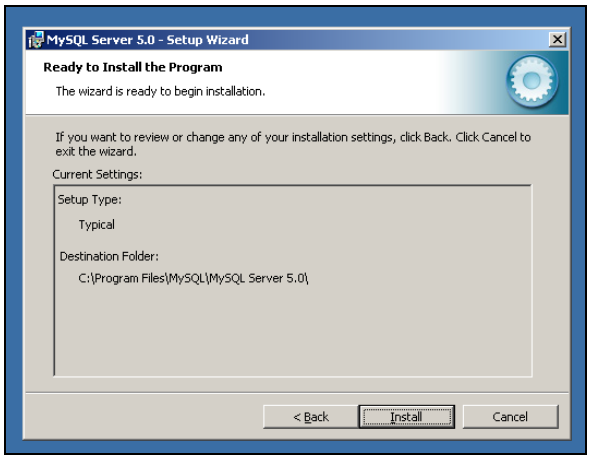
c. Click next on the initial screen

MySQL Server 5.0 - Setup Wizard
Welcome to the Setup Wizard for MySQL Server 5.0
The Setup Wizard will install MySQL Server 5.0 release 5.0.51a on your computer. To continue, click Next.
WARNING: This program is protected by copyright law.
MySQL
< Back
Next >
Cancel

d. Choose Typical installation and click Next


MySQL Server 5.0 - Setup Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Typical
Common program features will be installed. Recommended for general use.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
< Back
Next >
Cancel

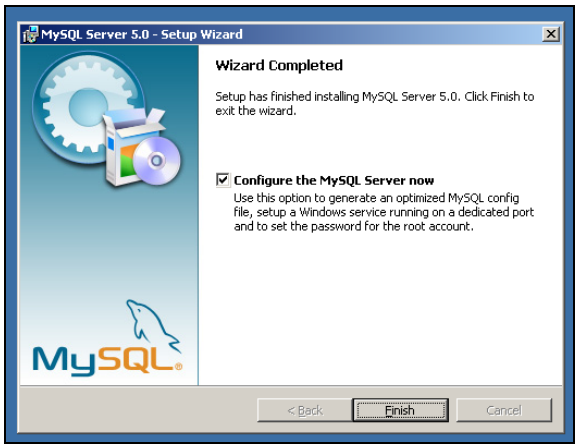
e. Click Install


MySQL Server 5.0 - Setup Wizard
Ready to Install the Program
The wizard is ready to begin installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Current Settings:
Setup Type:
Typical
Destination Folder:
C:\Program Files\MySQL\MySQL Server 5.0\
< Back
Install
Cancel

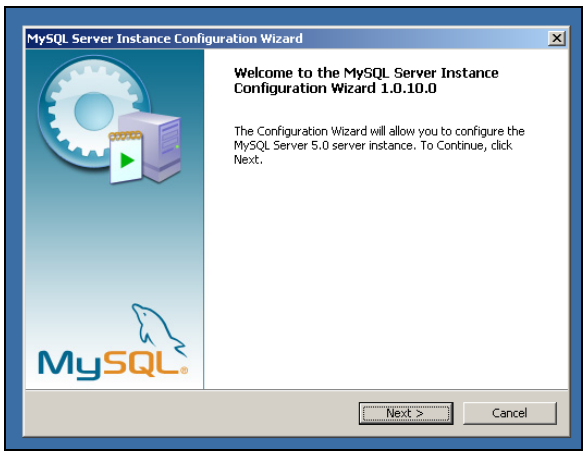
f. Click Next twice

MySQL Enterprise
MySQL
Enterprise
A MySQL Enterprise subscription is the most comprehensive offering of MySQL database software, services and support to ensure your business achieves the highest levels of reliability, security and uptime.
An Enterprise Subscription includes:
1. The MySQL Enterprise Server - The most reliable, secure, and up-to-date version of the worlds most popular open source database.
2. The MySQL Monitoring and Advisory Service - An automated virtual database assistant.
3. MySQL Production Support - Technical and consultative support when you need it, along with service packs, hot-fixes and more.
For more information click [More...] or visit www.mysql.com/enterprise
More ...
< Back
Next >
Cancel

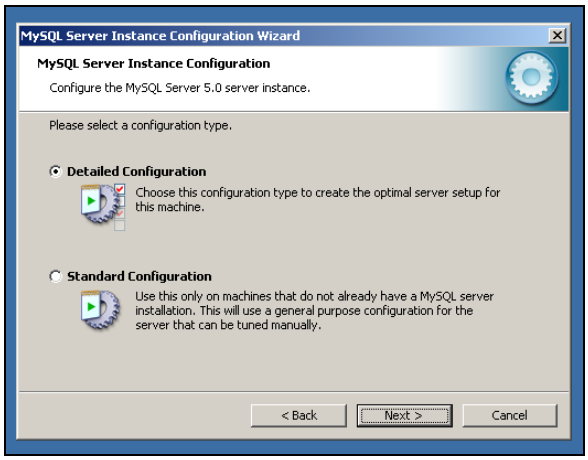
g. Make sure “Configure the MySQL Server now” is checked and Click Finish


MySQL Server 5.0 - Setup Wizard
Wizard Completed
Setup has finished installing MySQL Server 5.0. Click Finish to exit the wizard.
Configure the MySQL Server now
Use this option to generate an optimized MySQL config file, setup a Windows service running on a dedicated port and to set the password for the root account.
MySQL
< Back
Finish
Cancel

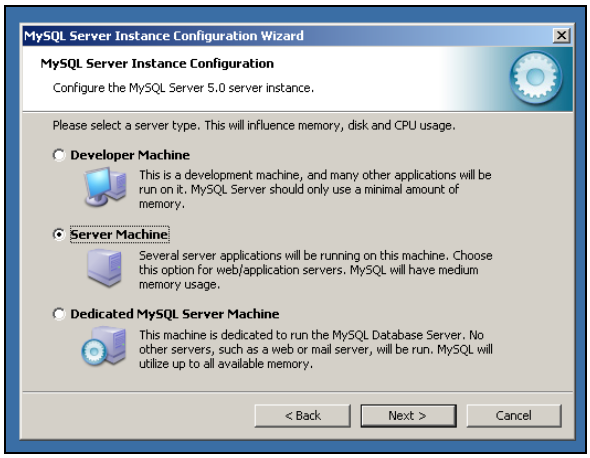
h. Click Next on the initial configuration Screen


MySQL Server Instance Configuration Wizard
Welcome to the MySQL Server Instance Configuration Wizard 1.0.10.0
The Configuration Wizard will allow you to configure the MySQL Server 5.0 server instance. To Continue, click Next.
MySQL
Next >
Cancel

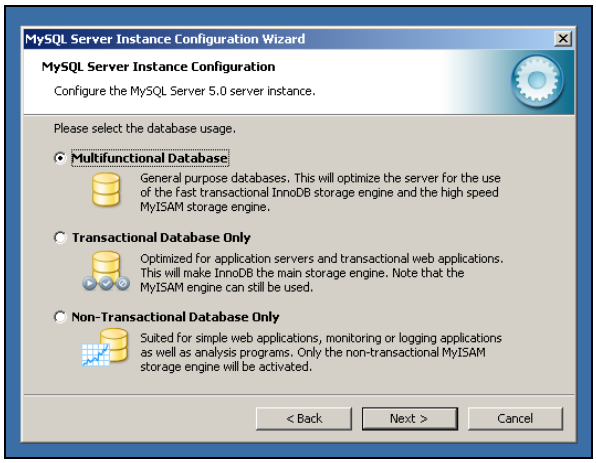
i. Choose Detailed Configuration and click Next


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please select a configuration type.
Detailed Configuration
Choose this configuration type to create the optimal server setup for this machine.
Standard Configuration
Use this only on machines that do not already have a MySQL server installation. This will use a general purpose configuration for the server that can be tuned manually.
< Back
Next >
Cancel

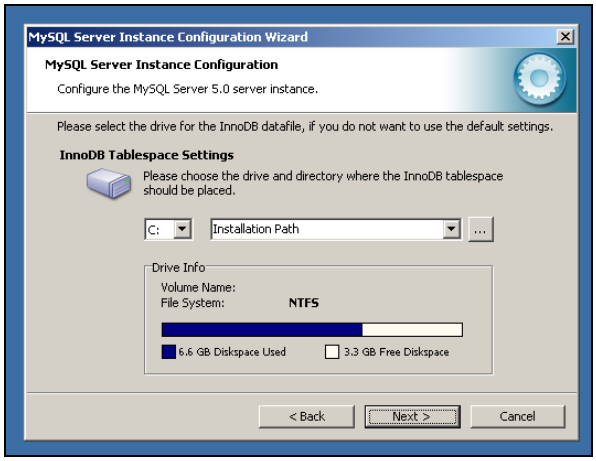
j. Choose Server and click Next


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please select a server type. This will influence memory, disk and CPU usage.
Developer Machine
This is a development machine, and many other applications will be run on it. MySQL Server should only use a minimal amount of memory.
Server Machine
Several server applications will be running on this machine. Choose this option for web/application servers. MySQL will have medium memory usage.
Dedicated MySQL Server Machine
This machine is dedicated to run the MySQL Database Server. No other servers, such as a web or mail server, will be run. MySQL will utilize up to all available memory.
< Back
Next >
Cancel

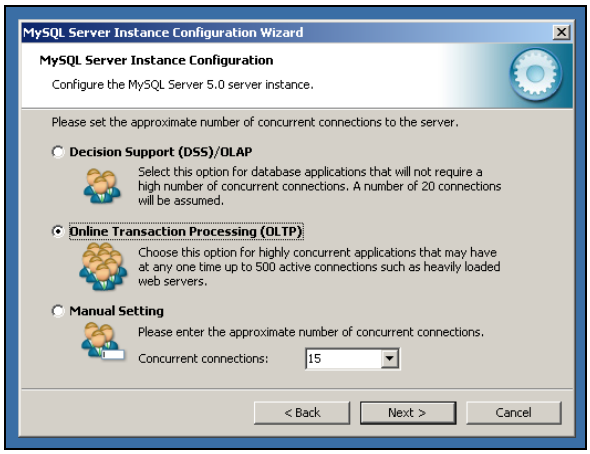
k. Choose Multifunctional Database and click Next


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please select the database usage.
Multifunctional Database
General purpose databases. This will optimize the server for the use of the fast transactional InnoDB storage engine and the high speed MyISAM storage engine.
Transactional Database Only
Optimized for application servers and transactional web applications. This will make InnoDB the main storage engine. Note that the MyISAM engine can still be used.
Non-Transactional Database Only
Suited for simple web applications, monitoring or logging applications as well as analysis programs. Only the non-transactional MyISAM storage engine will be activated.
< Back
Next >
Cancel

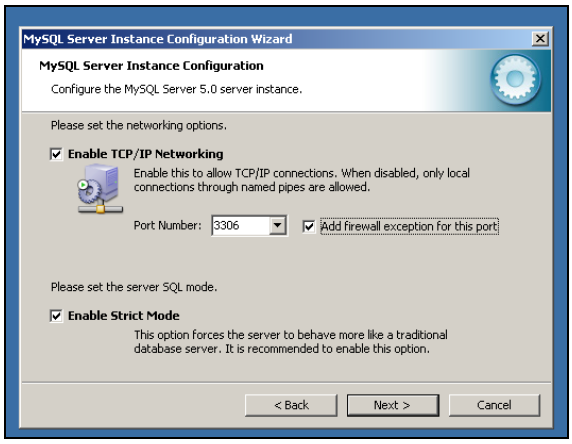
l. Accept the Instance configuration defaults and click


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please select the drive for the InnoDB datafile, if you do not want to use the default settings.
InnoDB Tablespace Settings
Please choose the drive and directory where the InnoDB tablespace should be placed.
C:
Installation Path
Drive Info
Volume Name:
File System: NTFS
6.6 GB Diskspace Used
3.3 GB Free Diskspace
< Back
Next >
Cancel

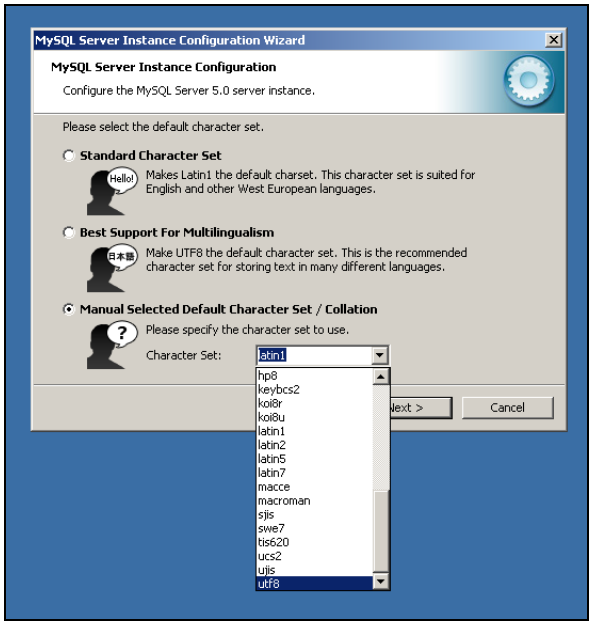
m. Choose Online Transaction Processing (OLTP) and click Next


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the approximate number of concurrent connections to the server.
Decision Support (DSS)/OLAP
Select this option for database applications that will not require a high number of concurrent connections. A number of 20 connections will be assumed.
Online Transaction Processing (OLTP)
Choose this option for highly concurrent applications that may have at any one time up to 500 active connections such as heavily loaded web servers.
Manual Setting
Please enter the approximate number of concurrent connections.
Concurrent connections:
15
< Back
Next >
Cancel

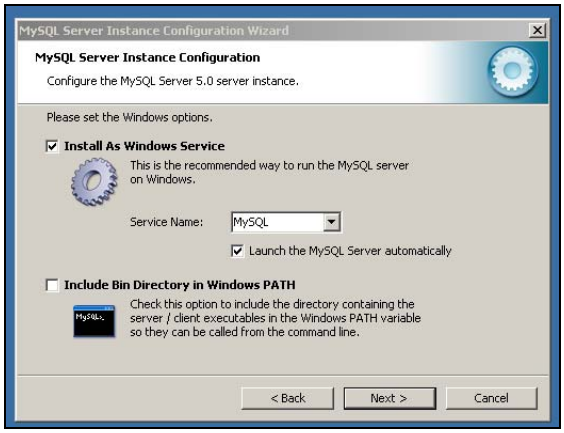
n. Check the "Add Firewall exception for this port" and click Next


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the networking options.
Enable TCP/IP Networking
Enable this to allow TCP/IP connections. When disabled, only local connections through named pipes are allowed.
Port Number:
3306
Add firewall exception for this port
Please set the server SQL mode.
Enable Strict Mode
This option forces the server to behave more like a traditional database server. It is recommended to enable this option.
< Back
Next >
Cancel

o. Choose Manual Selected Default Character Set / Collation From the drop down menu choose utf8



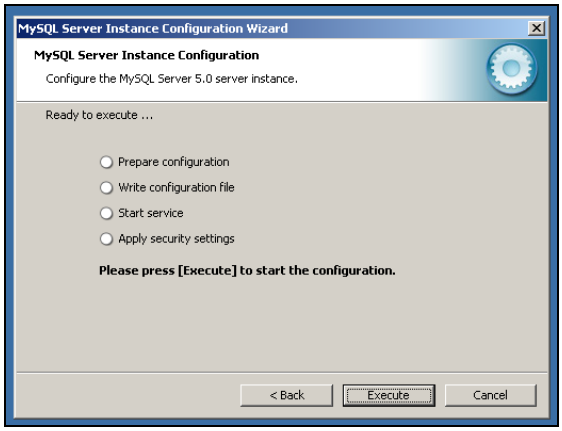
p. Accept the default and click Next


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the Windows options.
Install As Windows Service
This is the recommended way to run the MySQL server on Windows.
Service Name:
MySQL
Launch the MySQL Server automatically
Include Bin Directory in Windows PATH
Check this option to include the directory containing the server / client executables in the Windows PATH variable so they can be called from the command line.
< Back
Next >
Cancel

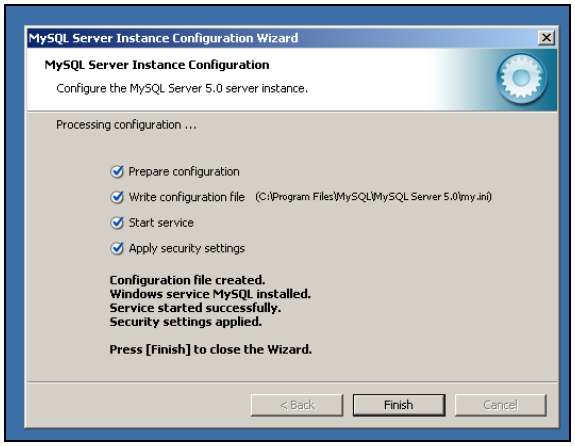
q. Type in “rootpass” in the new root password and confirmation then click Next.

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the security options.
Modify Security Settings
New root password:
Enter the root password.
Confirm:
Retype the password.
Enable root access from remote machines
Create An Anonymous Account
This option will create an anonymous account on this server. Please note that this can lead to an insecure system.
< Back
Next >
Cancel

r. Click Execute

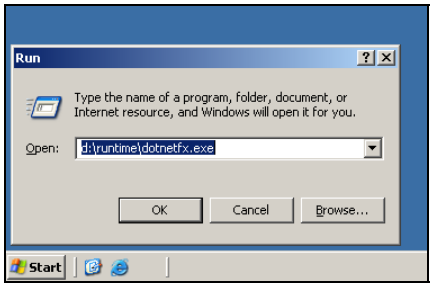


s. When the execution finishes click Finish

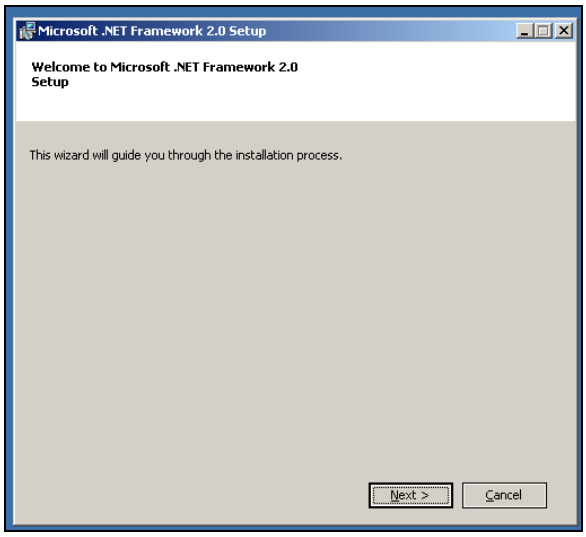


8. Install .NET 2.0 as follows

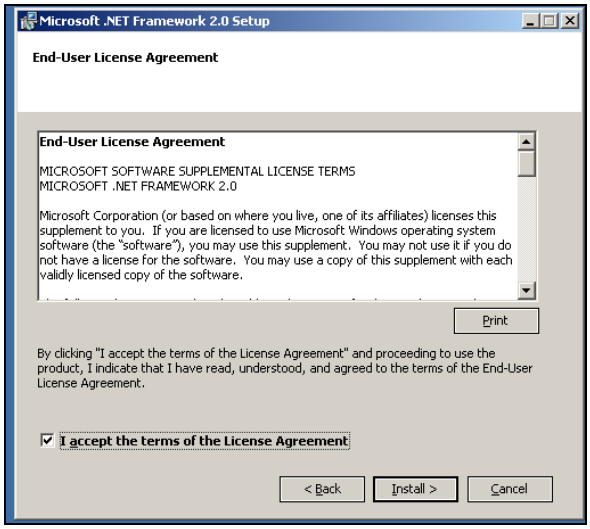
a. Open Start > Run type in d:\runtime\dotnetfx.exe as shown below then click OK. Where D: is the CD_ROM drive letter.



b. Click Next


Microsoft .NET Framework 2.0 Setup
Welcome to Microsoft .NET Framework 2.0 Setup
This wizard will guide you through the installation process.
Next >
Cancel

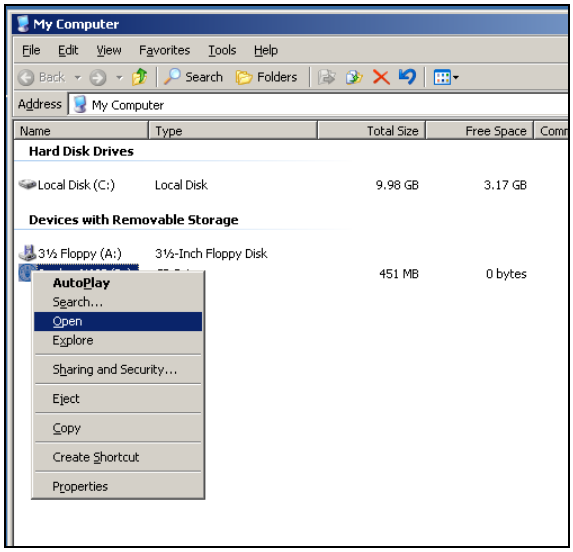
c. Accept License Agreement


Microsoft .NET Framework 2.0 Setup
End-User License Agreement
End-User License Agreement
MICROSOFT SOFTWARE SUPPLEMENTAL LICENSE TERMS
MICROSOFT .NET FRAMEWORK 2.0
Microsoft Corporation (or based on where you live, one of its affiliates) licenses this supplement to you. If you are licensed to use Microsoft Windows operating system software (the "software"), you may use this supplement. You may not use it if you do not have a license for the software. You may use a copy of this supplement with each validly licensed copy of the software.
Print
By clicking "I accept the terms of the License Agreement" and proceeding to use the product, I indicate that I have read, understood, and agreed to the terms of the End-User License Agreement.
I accept the terms of the License Agreement
< Back
Install >
Cancel

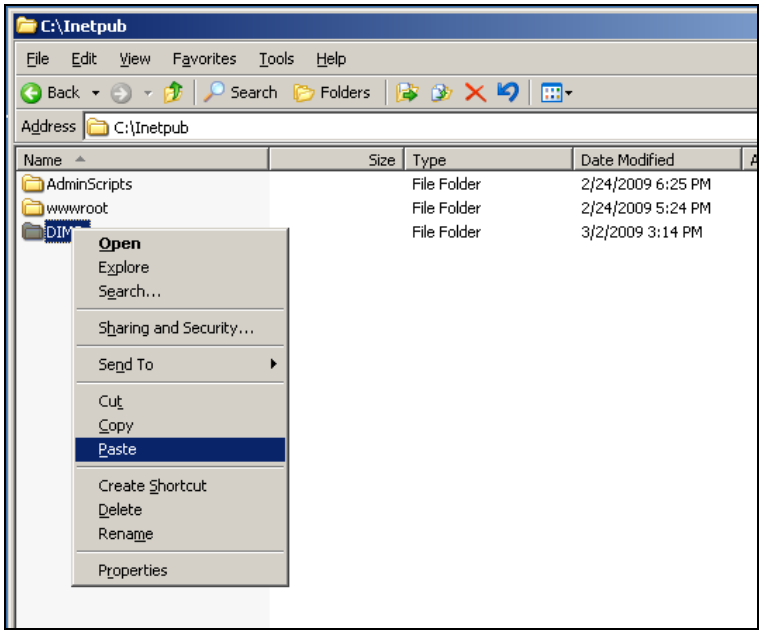
Click Install and wait till prompted then click Finish.

WEB-DIMS CD

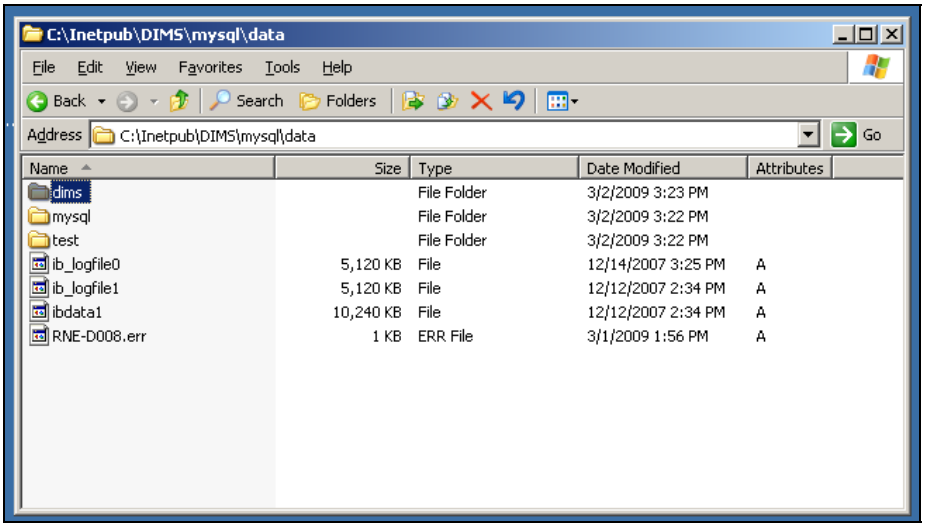
9. Copy WEB-DIMS folder from CD-ROM to “C:\INETPUB” folder
    a. Open CD ROM



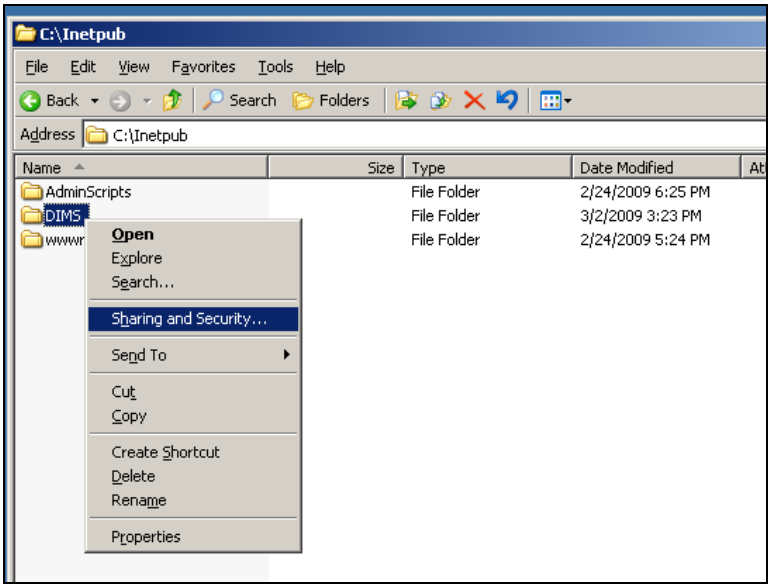
    b. Create a folder WEB-DIMS in C:\Inetpub\
    c. Copy the contents of the folder “WEB-DIMS-without-XML” to the folder C:\Inetpub\WEB-DIMS

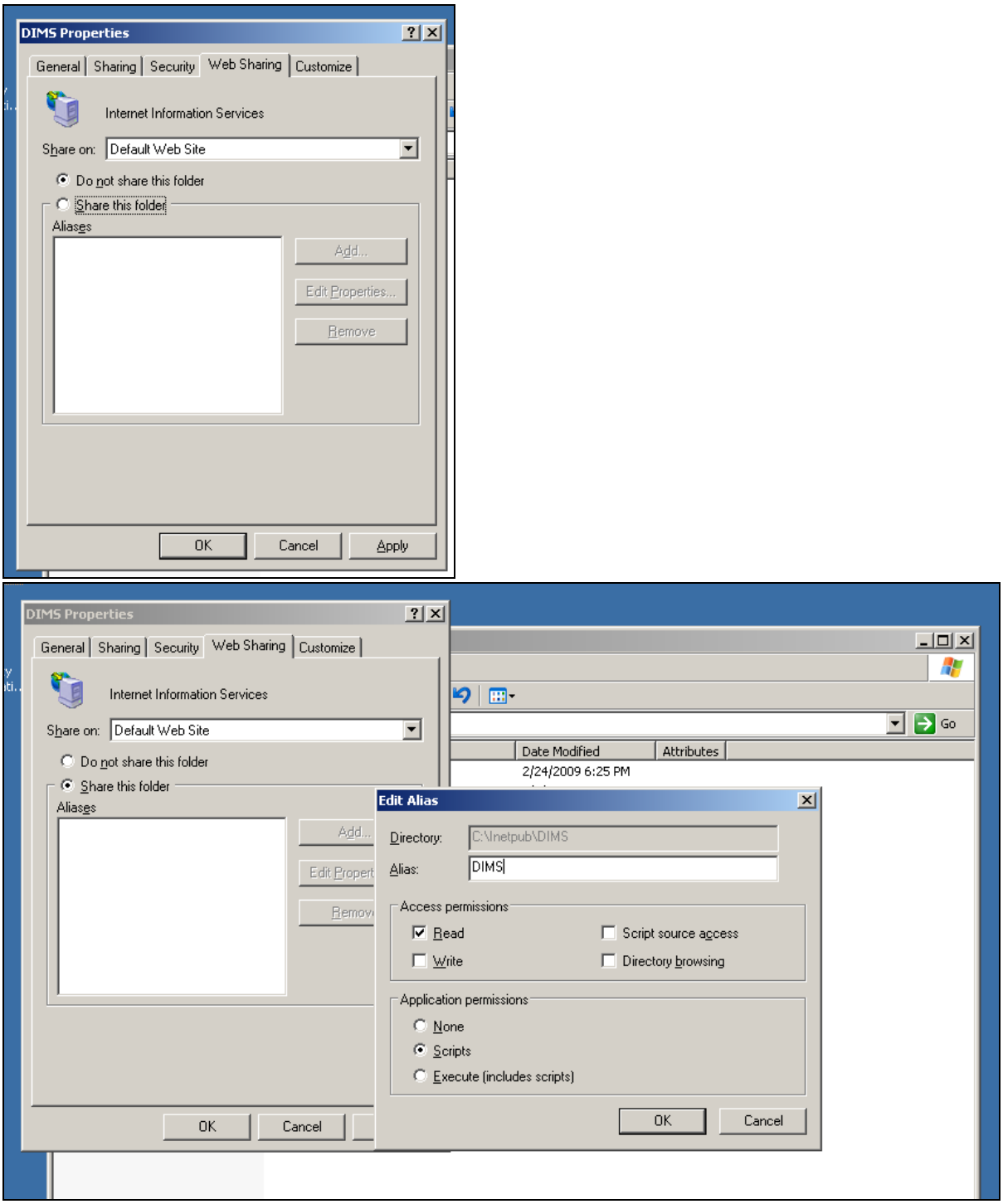


10. Copy WEB-DIMS Data Base folder from CD ROM C:\Inetpub\WEB-DIMS\mysql\data to C:\Program Files\MySQL\MySQL Server 5.0\data

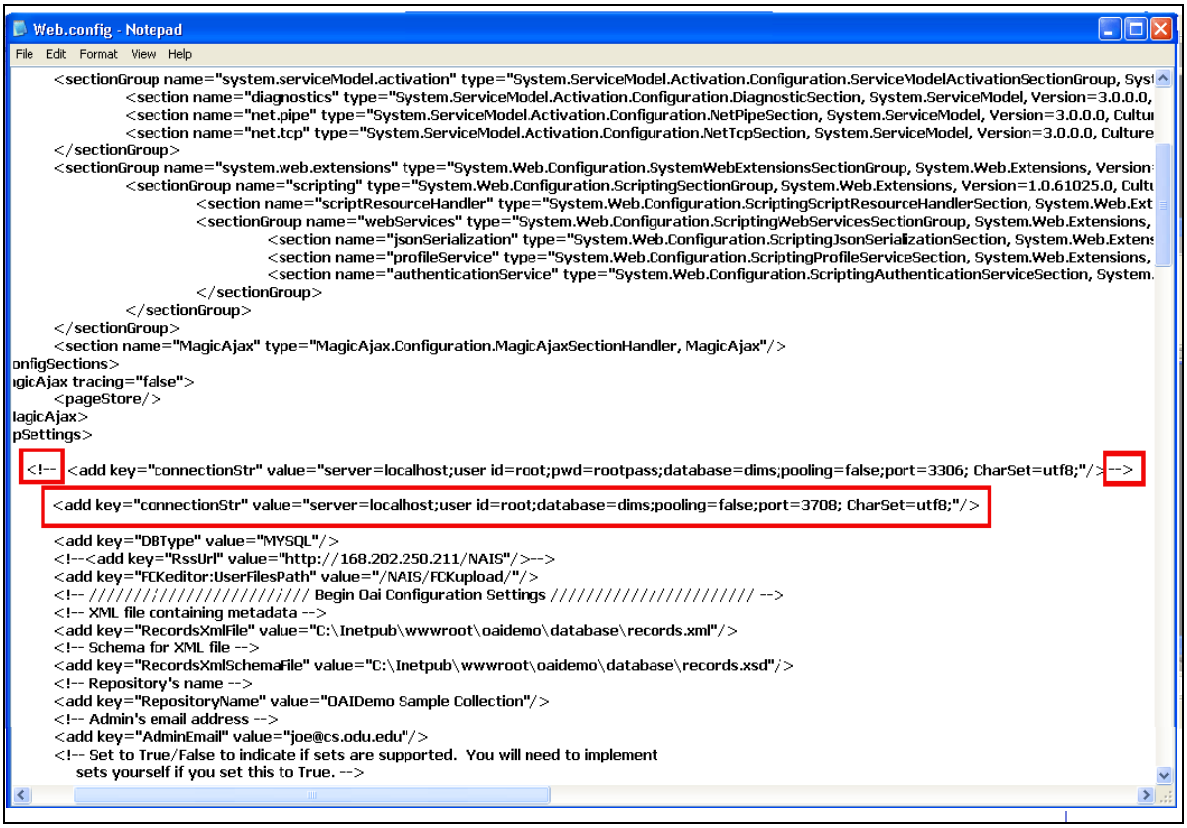

C:\Inetpub\DIMS\mysql\data
File Edit View Favorites Tools Help
Back Search Folders
Address C:\Inetpub\DIMS\mysql\data
Go
Name Size Type Date Modified Attributes
dims File Folder 3/2/2009 3:23 PM
mysql File Folder 3/2/2009 3:22 PM
test File Folder 3/2/2009 3:22 PM
ib_logfile0 5,120 KB File 12/14/2007 3:25 PM A
ib_logfile1 5,120 KB File 12/12/2007 2:34 PM A
ibdata1 10,240 KB File 12/12/2007 2:34 PM A
RNE-D008.err 1 KB ERR File 3/1/2009 1:56 PM A

11. Web Share the Web-DIMS Folder from C:\InetPub




DIMS Properties
General
Sharing
Security
Web Sharing
Customize
Internet Information Services
Share on:
Default Web Site
Do not share this folder
Share this folder
Aliases
Add...
Edit Properties...
Remove
OK
Cancel
Apply
DIMS Properties
General
Sharing
Security
Web Sharing
Customize
Internet Information Services
Share on:
Default Web Site
Do not share this folder
Share this folder
Aliases
Add...
Edit Properti
Remov
OK
Cancel
Edit Alias
Directory:
C:\Inetpub\DIMS
Alias:
DIMS
Access permissions
Read
Script source access
Write
Directory browsing
Application permissions
None
Scripts
Execute (includes scripts)
OK
Cancel
Go
Date Modified
Attributes
2/24/2009 6:25 PM

12. Edit the file C:\Inetpub\DIMS\web.config using a text editor (Notepad.exe). Remove the sections marked in red in the image below.



13. Save web.config
14. Restart the Server.